APRIL · 1955
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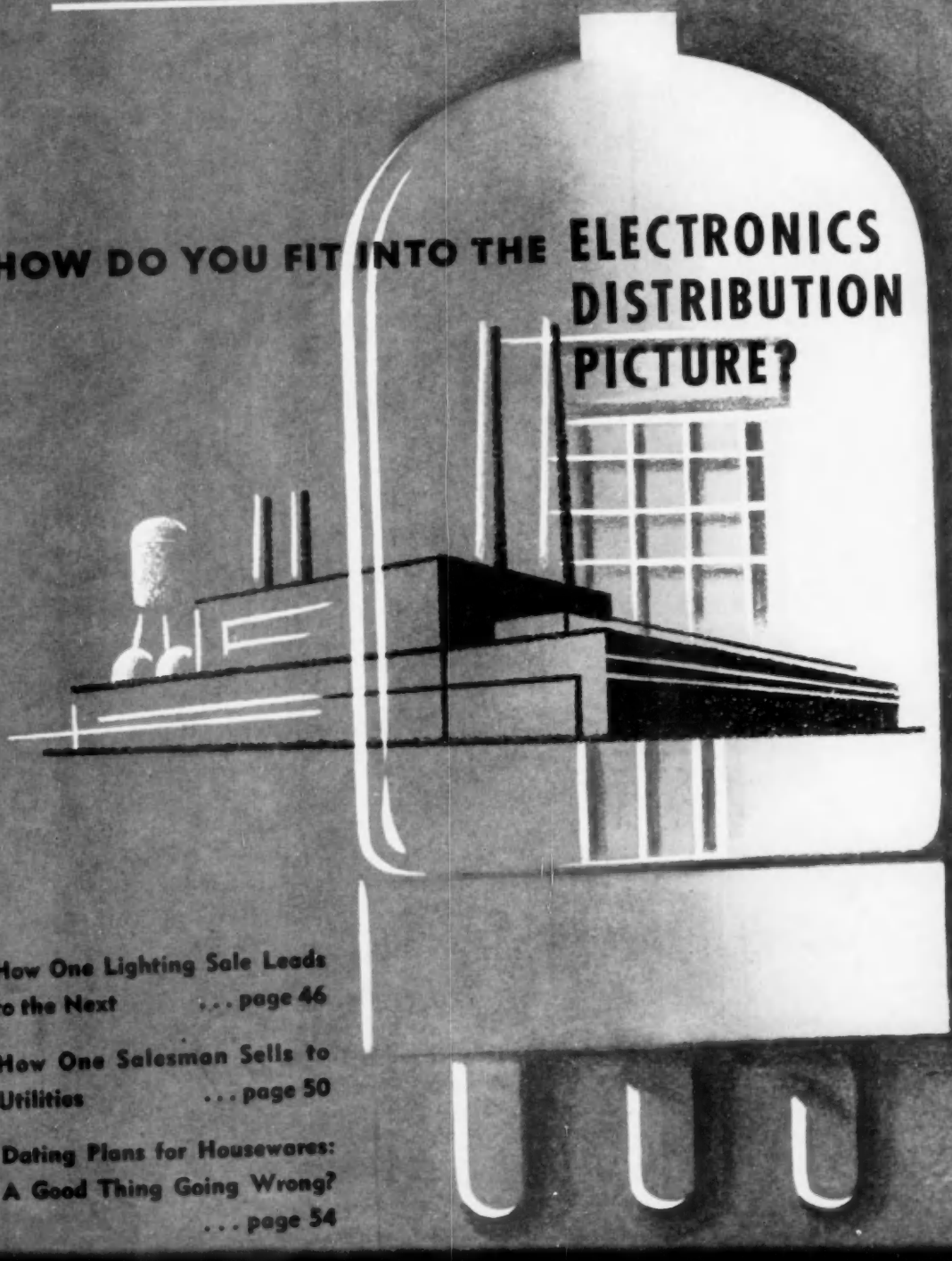
ELECTRICAL WHOLESALING

THE NATIONAL MAGAZINE OF ELECTRICAL WHOLESALE DISTRIBUTION



HOW DO YOU FIT INTO THE ELECTRONICS DISTRIBUTION PICTURE?

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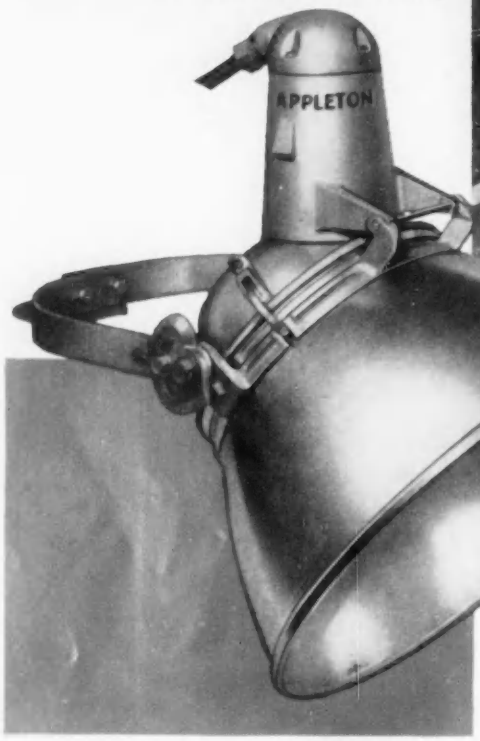
Dating Plans for Housewares: A Good Thing Going Wrong? ... page 54

"Permit me to congratulate you on the production of a fine light . . ."

Charles A. Comiskey



APPLETON

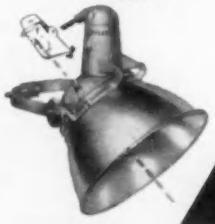
INTENSO

TRADE MARK

Alzac Aluminum Floodlights

FOR ATHLETIC FIELDS and OTHER LARGE AREAS

Split-Second Rear Re-lamping—No tools needed! No nuts or bolts! Rear lid with lamp opens wide for easy access! Do it in seconds even during a game!



Rifle Like Aiming—After servicing, just flip lid down and clamp! Unit now weather sealed, perfectly! Exclusive louver ventilation eliminates condensation! Aim merely by looking through peep sight, then locking in position!

New APPLETON Lights at Famed Comiskey Park in Chicago Turn Night into Day! 768 *Intenso* floodlights mounted on eight towers give daylight visibility to the entire field. No wonder Charles A. Comiskey says "... the new White Sox lighting is unequalled anywhere in the Major Leagues..."

In addition, APPLETON *INTENSO* Floodlights offer greater ease of servicing, cleaning, relamping and positioning for maximum trouble-free year 'round lighting. That's why we say, investigate APPLETON *INTENSO* Floodlights before you buy!

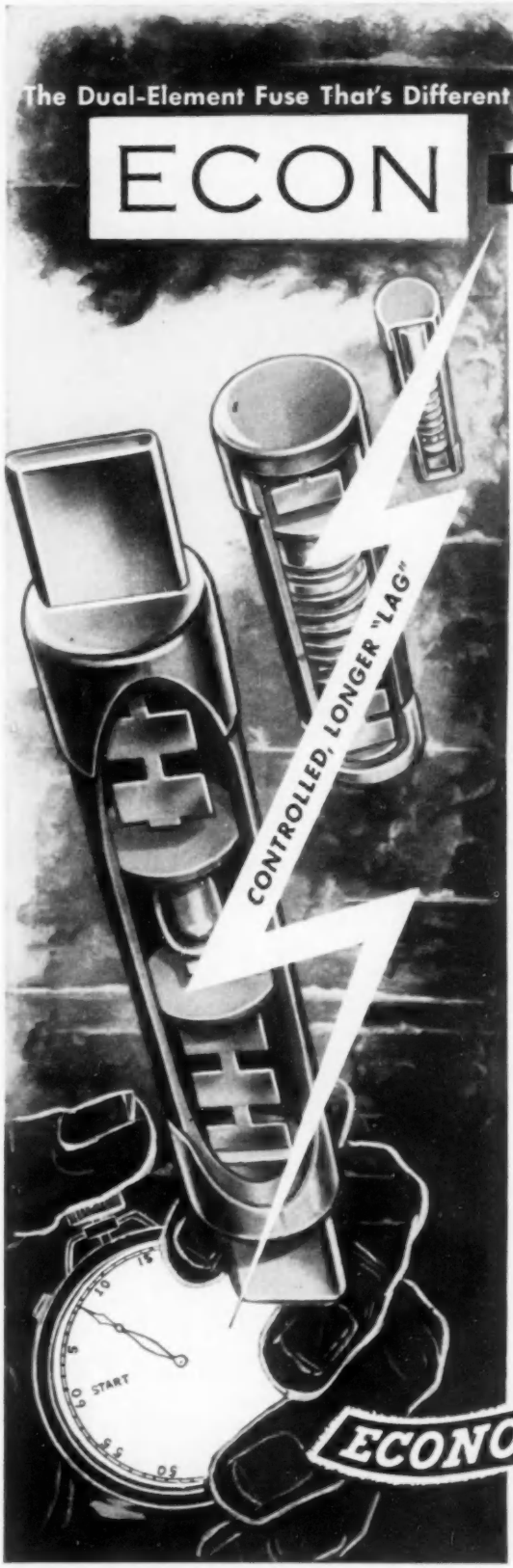
Sold Exclusively Through Selected Wholesalers

APPLETON ELECTRIC COMPANY
1734 Wellington Avenue • Chicago 13, Illinois

APPLETON ELECTRIC PRODUCTS — REG. U.S. PAT. OFF.

Also Manufacturers of:

Rely on APPLETON *... The Standard for Better Lighting*



Dual-Element Cartridge FUSES

. . . carry their own "STOP WATCH"

You get extra protection against overloads and "shorts" with ECON Dual-Element Cartridge Fuses.

Because on a sustained overload, heat from the fusible links is conducted into the Econ-alloy time-lag element. If the overload is continued *beyond the safe and predetermined time*, the heat causes the Econ-alloy to become liquid and release from the fusible links, thereby opening the circuit.

On a short circuit, the fusible links open the circuit immediately before dangerous pressures can be developed.

ECON Dual-Element Cartridge Fuses are available in knife and ferrule types; 0 to 600 amperes; 250 and 600 Volts. Underwriters' Laboratories, Inc. Approved. Carried in stock by leading Electrical Wholesalers. Write for New ECON Catalog S-60 or for literature on other type fuses in which you are interested.

☆ ☆ ☆

ELECTRICAL WHOLESALERS—

There is an important time-element for you, too; be among the first to carry in stock a full selection of ECON Dual-Element Cartridge Fuses and you will get a good share of the increased business these fuses are developing.

ECONOMY fuses for every purpose

ECONOMY FUSE & MANUFACTURING CO.

465EW 2717 GREENVIEW AVE. • CHICAGO 14, ILLINOIS

LETTERS TO THE EDITOR

Candid Viewpoint

Dear Sir:

I take rather strenuous issue with an editorial in one of your recent releases. The editorial I refer to was one in which the writer was encouraging the electrical wholesaler to "go after" the original equipment manufacturer (O. E. M.) business (EW—Jan '55, p. 29). Frankly, they do not belong in this field any more than I belong in selling stock for uranium mines. You are well aware that the distributors are "crying the blues" because they have so many low-profit lines to handle. Who do you think got them into that position? They did it all by "their own little selves." The only reason that the O. E. M. market looks good to them now is because that is a market in which the manufacturer has done sales engineering—and now your paper is encouraging the distributor to start again to cut each other's throats in that field as long as the "gravy holds out." If I sound a little excited, I am justly so. The average distributor's salesman is not an engineer—he is an order taker for whatever the customer wants off the shelf from the country store.

C. R. DURLING, JR.
SALES MANAGER
SIGNAL ENGINEERING & MFG. CO.
LONG BRANCH, NEW JERSEY

The Jackpot Hit Again

Dear Sir:

Your most informative magazine has again hit the jackpot.

Mr. Gudie's article, "The Vital Link" (EW—Feb. '55, p. 59), is the epitome of logic and hard thinking. Although I believe every wholesaler is aware of the particular conditions set forth in this article I feel certain we've all been playing "ostrich."

Please forward 100 reprints of this article. The import of Mr. Gudies's article classifies it as required reading for our good customers as well as a must for our local competitor wholesalers.

"Orchids to the author and ELECTRICAL WHOLESALING."

ARNOLD S. CARTIN
GENERAL MANAGER
THE CAPITOL LIGHT AND SUPPLY CO.
HARTFORD, CONN.

Dear Sir:

Enclosed find check to cover cost of 20 reprints of Mr. Gudie's article. Congratulations on this fine article. We plan to use reprints to emphasize points with contractor customers.

J. C. RILEY
SALES DEPARTMENT
GRAYBAR ELECTRIC CO., INC.
BALTIMORE, MARYLAND

Dear Sir:

Kindly send us 25 reprints of (that) very interesting article.

Mr. Gudie is certainly blessed with keen and analytical judgment and presents his story fairly and forceably. I would like to see an article by him analyzing the residential lighting fixture manufacturers, and a suggested subject would be, "The Low Man On The Totem Pole."

D. G. CAMERON
VICE PRESIDENT-SALES
THE PHOENIX GLASS COMPANY
MONACA, PENNA.

• Reprints of "The Vital Link" are available at the following rates: 1 to 10 copies, 20¢ each; over 10 copies, 15¢ each. Address orders to ELECTRICAL WHOLESALING, 330 West 42nd St., New York 36, N. Y.

Delayed Action

Dear Sir:

I think the story (Atlantic Electrical Supply Co.'s "Traveling Tag System Ends Overstocking") is one of the best I have ever read. (EW—Mar. '55, p. 42). One of our men, after reading it, commented, "Now I understand the system for the first time." You are to be complimented.

M. M. GREEN
ATLANTIC ELECTRICAL SUPPLY CO., INC.
WORCESTER, MASS.

Like The Idea

Dear Sir:

I certainly digest with interest your letter published in the February 1955 issue of ELECTRICAL WHOLESALING (page 2).

Since '47 we have opened up a branch 30 miles to the north of us

Continued on next page

This ad appears this month in...

ELECTRICAL CONSTRUCTION AND MAINTENANCE

ELECTRICAL URGE

QUALIFIED CONTRACTOR

whose combined circulation reaches many of your important customers

ADS LIKE THESE every month

. . . plus DIRECT MAIL

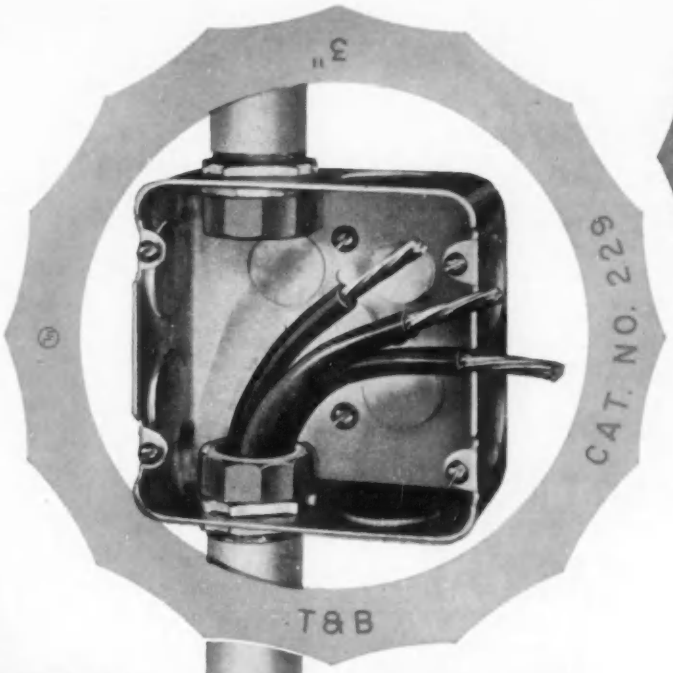
. . . plus PRODUCT SAMPLING

explain and point out to them T & B product features.

REMINDS THEM, TOO, that T & B products are available only from you . . . our authorized distributor. T312

General Sales Manager

The THOMAS & BETTS CO.
Incorporated



NEW T & B INSULATING BUSHINGS
for ½" to 6" Standard Rigid Conduit

T&B ENGINEERED

TOUGH... BEND 'EM, POUND 'EM, TWIST 'EM

These new T & B Insulating Bushings are designed to withstand rough treatment. Made of tough cellulose acetate butyrate, they're the toughest Insulating Bushings available today.

Use T & B's new Insulating Bushings wherever NEC requires protection for cable sheath or wire insulation against damage from burred or unevenly cut conduit . . . or for the ultimate in protection even where not required. Send today for a free sample and descriptive literature.

Toughest Insulating Bushing Available Today . . . Can be used over and over again . . . shatterproof.

Vibration-Proof . . . Easily installed by hand, yet a wrench is needed to take them off. Bushing threads *lock* onto conduit.

Resists Corrosion . . . Unaffected by common acids, solvents, moisture or fumes.

Blue Color . . . Provides easy identification for electrical inspectors.

LOOK FOR THIS SIGN — AUTHORIZED DISTRIBUTOR T&B ENGINEERED

IT'S THE MARK OF AN AUTHORIZED T & B DISTRIBUTOR

The complete line of T & B fittings for conductors and raceways is sold only by recognized electrical wholesalers. It's our way of assuring you the service and savings of a friendly local source. Call him for all your electrical needs. T44

THE THOMAS & BETTS CO.

INCORPORATED
20 Butler Street • Elizabeth 1, New Jersey
Thomas & Betts Ltd., Montreal, P.Q., Canada
MANUFACTURERS OF FINE ELECTRICAL FITTINGS SINCE 1898

SQUARE D COMPANY
ELECTRICAL EQUIPMENT
TRINITY 2-0400 6060 RIVARD STREET, DETROIT 11, MICHIGAN

April, 1955

memo
TO OUR DISTRIBUTORS

Since an electrical distributor's basic function is to service his local marketing area, perhaps his most important responsibility is maintaining an adequate stock. Yet we occasionally hear a distributor ask, "Why don't you, the manufacturer, keep a large stock in town?" We answer this question with a very valid observation -- any time a distributor encourages a supplier to assume that job, he eliminates one of the biggest reasons why that supplier should sell through a distributing organization.

There's another equally important reason why local stocks usually work against good distributors. It permits other distributors in the area, without sufficient working capital, to draw on such stocks. Thus, they become competitive without taking on a normal business responsibility which rightfully is theirs. If such a trend were projected to a logical conclusion, the field would soon be overcrowded.

For competitive reasons certain suppliers may find area stocks necessary to offset distances from their manufacturing facilities. However, such stocks should not contain large quantities of standard devices which would overlap the distributor's stocking function. Instead, these stocks should consist of non-standard or special items which you can draw on in an emergency. Such stocks then supplement and support your effort rather than undermine it. Doesn't that make sense?

Yours very truly,

SQUARE D COMPANY

W. H. Younger

W. H. Younger, Manager
Merchandise Sales & Advertising

WHY:mbw

ELECTRICAL WHOLESALING

THE NATIONAL MAGAZINE OF ELECTRICAL WHOLESALE DISTRIBUTION

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(with Wholesaler's Salesman)

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Next Month:

The electrical wholesaling industry's newest basic dimensions

Member ABC and ABP

45° ANGLE

CONNECTOR

NEW *midwest* ANGLE CONNECTORS

APPLICATION

45° and 90° angle connectors for non-metallic cable, armored cable, flexible steel conduit. Connectors are two-screw, hinged cap; are designed for neat and quicker installations for O.E.M. as well as regular trade applications.

★ ENGINEERING

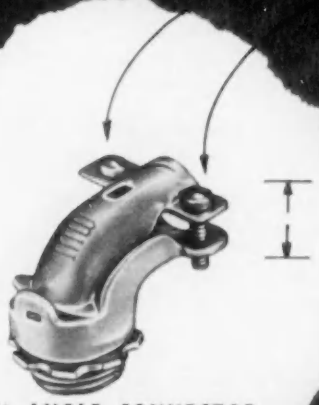
These fittings are designed with a screw on each side of the opening to provide a secure grip on the cable. Screws are of sufficient length to permit cable to be installed without removing cap.

MATERIAL

Connectors are made with a malleable iron body, formed steel cap and locknut; thoroughly cadmium plated for protection against corrosion.

SIZE

Connectors are standard trade size 3/8", for 1/2" threaded hub or knockout. Minimum and maximum openings for cable are 3/8" and 21/32".



90° ANGLE CONNECTOR

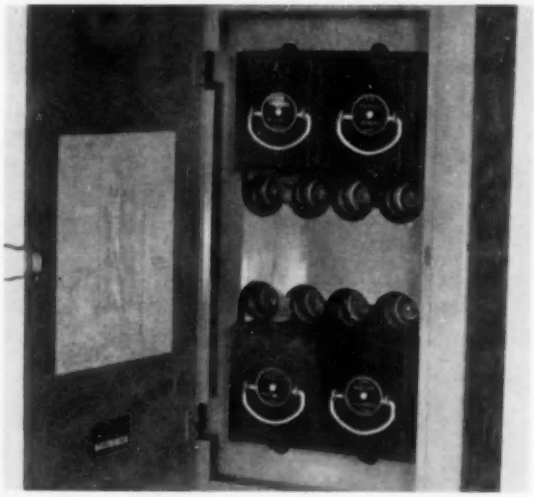
Here is another Midwest development in providing quality fittings. "Quality" is just a condensed way of saying: "Getting the total job done—right—with the most inexpensive combination of material and man hours." Engineering and producing quality fittings to meet the highest standards of electrical wiring installations, is our objective at Midwest.

MW

Midwest Electric Mfg. Company

MANUFACTURERS OF ELECTRICAL WIRING PRODUCTS

1639 W. WALNUT STREET



Four-Pullout Panel

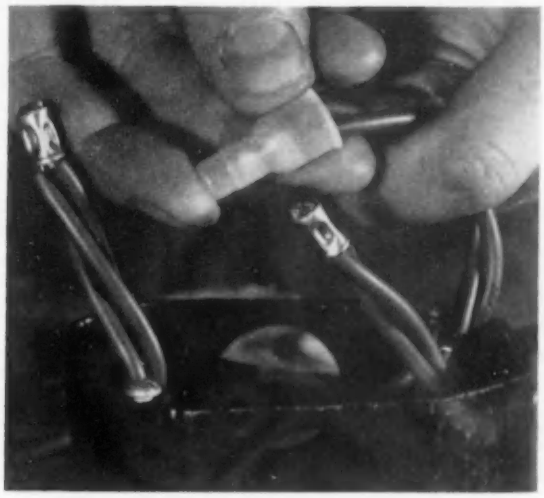
Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio

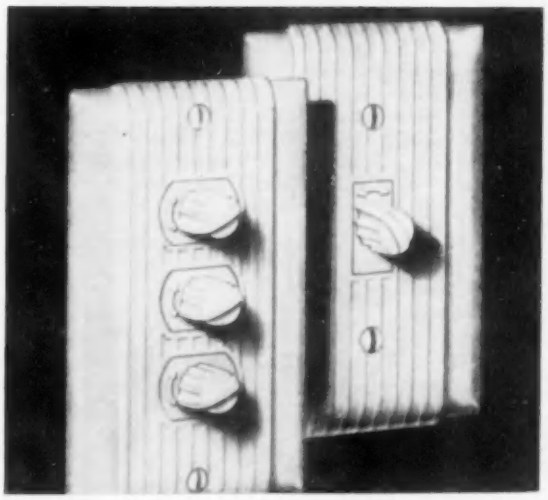
Service entrance elements, said to be ample for most homes, can be quickly and easily installed at one time through the use of a new four-pullout combination service panel introduced by the manufacturer's American Switch division. The panel is provided with 100-amp. main lugs, four pullouts in parallel—two for 60-amp. and two for 30-amp. fuses—and eight 30-amp. plug type branch circuit fuses. One 60-amp. pullout controls the eight branch circuit fuses. A second 60-amp. pullout is provided for a range circuit. The two 30-amp. pullouts are provided for such utilities as a water heater, laundry dryer, air conditioner, home workshop. Unit features ample wiring space, a large number of knock-outs in back and sides and an easily removed cover. The cabinet is available for flush or surface mounting and has U.L. approval for 120-240 volt, a. c. service.

Splice-Cap Insulator

Buchanan Electrical Products Corp., Hillside, N. J.

Snap-on-and-lock design of the nylon splice-cap insulator is claimed to assure a factory perfect insulation of wire splices and to make it easy to install, even on extremely flexible wires, and in hot or cold weather. The insulator's construction is said to eliminate necessity for threading, wrapping or twisting during installation and also minimizes the possibility of loosening in service. One-piece construction features an internal metallic retainer ring which allows the insulator to be readily snapped in place on an installed splice cap. Translucent nylon insulator body permits inspection of completed splice. Available in two sizes for use with two sizes of the manufacturer's "Splice Caps" which handle all normal circuit wiring requirements from splicing of two No. 18's through three No. 8's or two No. 6's. U. L. and Canadian Standards Assn. approved for use on building wire at 600 volts, and in fixtures at 1,000 volts, in applications up to 105°C.

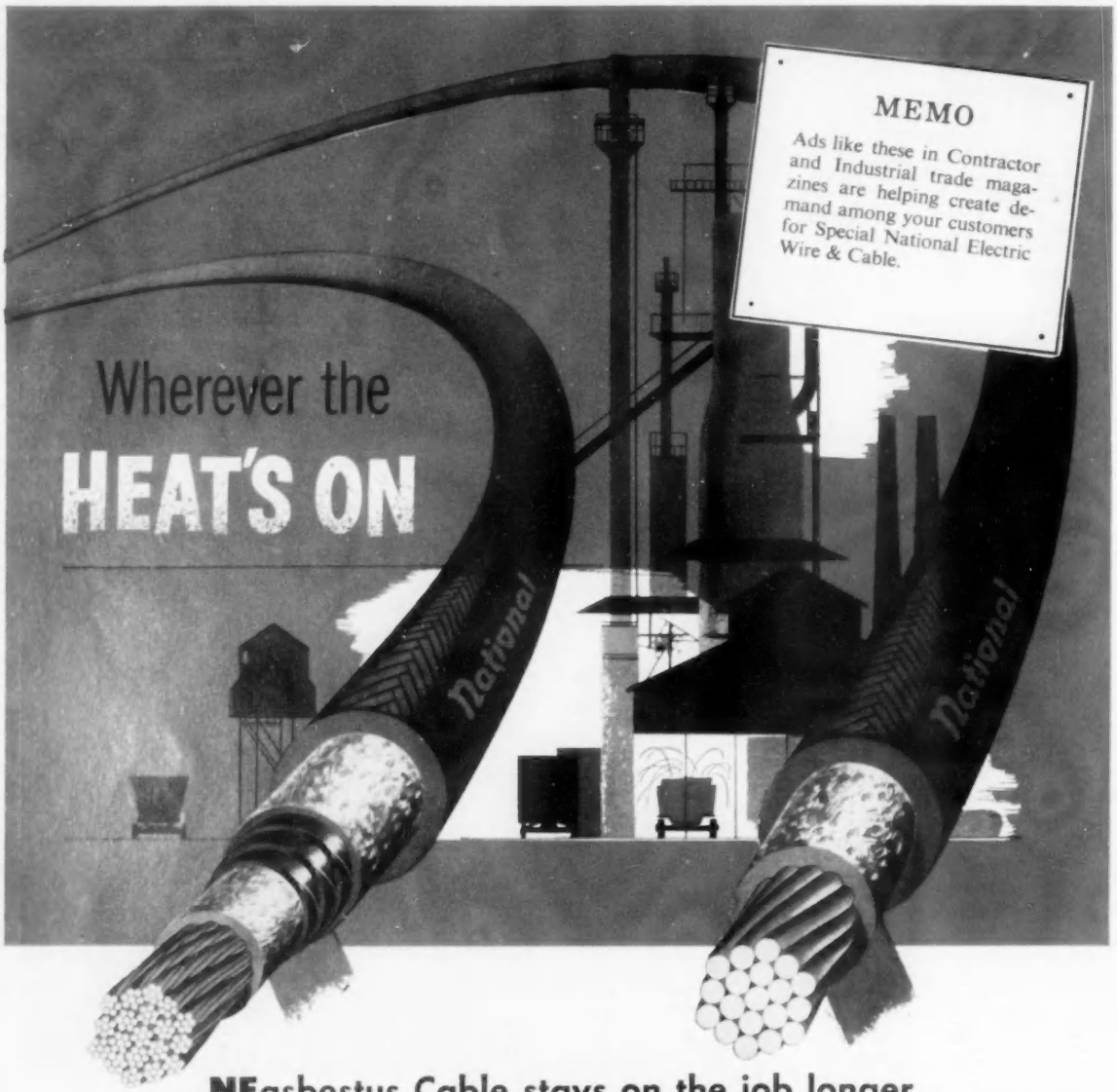




Light Switches

Pass & Seymour, Inc., Solvay Station, Syracuse 9, N.Y.

"Roto-Glo" switches are for use on a.c. circuits. They can be used to full current rating on incandescent and flourescent (inductive) lighting loads, and on motors when the full load current is not more than 80 per cent of current rating of switch. The switches are totally enclosed. They have screwless terminals for easy wiring and can be mounted in any position. Large silver alloy contacts are claimed not to oxidize under continuous heavy duty service thereby keeping temperature rise to a minimum. A moment's exposure to any light source and the luminous knob will pinpoint the switch location all night long. The switches are turned on just like a radio. Luminous boots are furnished as standard with all "Roto-Glo" switches. Available in P&S Despard type for combination wiring or conventional strap type. Despard type rated: 15 amp., 120 volt, a.c., 277 volt a.c.; strap type, 15 amp., 120 volt, a.c.



NEasbestus Cable stays on the job longer

ASBESTOS-VARNISHED CAMBRIC—Recommended for conduit, raceway or open wiring in boiler rooms, steel mills, power plants, steam tunnels and factories where heat, moisture, corrosive fumes, oil and fire hazards are present.

Sizes 18 AWG to 1,000 MCM. 600-volt to 5000-volt ratings. Maximum operating temperatures up to 110° C. (230° F.) for 600-volt wire; up to 100° C. (212° F.) for 5000-volt wire.

ALL-ASBESTOS—Recommended for motor connections, crane and engine compartment wiring, electric furnace leads and other open wiring, high temperature installations in dry locations.

Sizes 18 AWG to 1,000 MCM. 300-volt and 600-volt ratings. Maximum operating temperatures up to 200° C. (392° F.) for 300-volt wire and 125° C. (257° F.) for 600-volt wire.

Listed by Underwriters' Laboratories, Inc.

Where heat . . . moisture . . . oils . . . grease . . . or fumes limit the service life of ordinary cables, be sure to specify National Electric NEasbestus Wires and Cables—produced in two types to meet any "hot spot" need.

National Electric Products

NATIONAL ELECTRIC PRODUCTS CORP. PITTSBURGH, PA. 50TH ANNIVERSARY 1905–1955

PITTSBURGH, PA.

3 Plants • 10 Warehouses • 36 Sales Offices

NATIONAL ELECTRIC SPECIAL CABLES WILL MEET YOUR REQUIREMENTS FOR POWER, CONTROL AND ELECTRICAL EQUIPMENT

Wall Boxes

Steel City Electric Co., Pittsburgh 33, Pa.

Flush tile wall boxes feature an improved design. Unit is claimed to be inexpensive to install because it does not require a special adapter cover and has a generous wiring space—30 per cent more than a standard switch box. Made in single, two, three and four-gang units with four ¾-in. knockouts per device. This is said to simplify straight-through wiring.

Luminaires

Lighting Products, Inc., Highland Park, Ill.

"Thin-Lite" series of luminaires has a depth of 2⅝ in., which makes for a semi-recessed effect, although surface-mounted to the ceiling. Luminaires may be mounted end to end or side by side. Series consists of four types: two are 49 in. in length (equipped with 48-in. Rapid Start lamps); and two units are 97 in. long (equipped with 96-in. 430 M. A. lamps). In each length there is a two-lamp model, 12¼ in. wide and a four-lamp model, 26¾ in. wide.

Pushbutton

Rodale Manufacturing Co., Inc., Emmaus, Pa.

Narrow pushbutton is for chimes, buzzers, or bells. Unit is a brown plastic button with an ivory center push. Measures ⅝ in. wide, $^{17}/_{32}$ in. high and 2½ in. long. Features a tip-touch center push, rustproof bakelite body and extra long terminal screws. Narrow design is for installations on narrow doorways, as well as regular width frames. Also available in an ivory body with a brown center push.

Louver

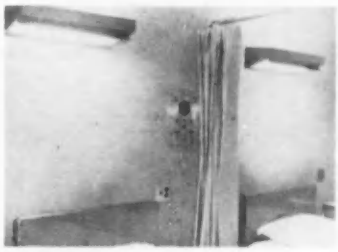
The Edwin F. Guth Co., St. Louis, Mo.

Low-brightness louver was developed for use with "Lite Box" recessed troffers. The new type louver is said to have a high visual comfort index which is the direct result of two factors: the parabolic design; and the new precision rolled cross-baffles. Available for two 40-watt conventional, rapid-start and slimline operation or for two 75-watt slimline. All electrical apparatus is C.B.M. and U.L. approved.

Outlet Box

Arrow Conduit & Fittings Corp., 129 30th St., Brookyln 32, N. Y.

Re-designed $4^{11}/_{16}$ inch square, folded outlet box has more knock-outs and wiring capacity. The new model is manufactured in both 1½ and 2⅛-in. depths, and is available in any arrangement of knock-outs up to 1¾ in. in size and as many as 17 total knockouts on the box. For example, three ¾-in. knockouts can be placed on each of four sides, thereby permitting 12 knock-outs in all. Box has a hot-dipped galvanized finish claimed to be many times heavier than U. L. and federal specifications.



Bedlight

Lightolier, Inc., Jersey City 5, N.J.

Hospital bedlight provides diffused light up and down with trigger start ballasts. Ribbed plexiglass in both top and bottom of unit to direct light to walls and ceiling. Can be controlled by a pull switch if required. A convenient outlet is provided for use with portable electric appliances. Fully enclosed. For relamping and cleaning, the entire upper diffuser assembly swings into vertical position.

Utility Drill

The Black & Decker Mfg. Co., Towson, Md.

New and improved version of the ¼ inch utility drill has an entirely new motor which gives 44 per cent greater power, as well as twice the torque of the former model. Features include the adoption of helical gears in place of spur gears in order to give more efficient transmission of power plus quieter and smoother operation. Handle has more finger room. Weighs 3 lbs. Spindle speed is 2,250 rpm. Drill accommodates all manufacturer's accessories used in conjunction with the ¼ inch drill.

Weatherproof Devices

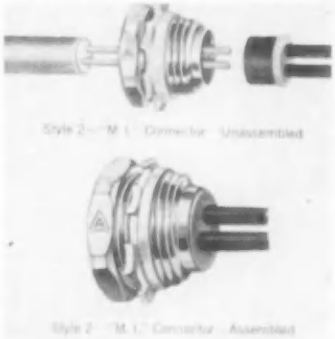
Eagle Electric Mfg. Co., Inc., Long Island City 1, N.Y.

Single and duplex flush weatherproof receptacles have screw caps which lock and unlock easily, and are held to the plate by a bead chain. Units sealed by cover and weatherproof gasket. Plates are brass with an aluminum finish. Devices may be installed in a single gang switch box. "T" rated single pole and 3-way switches are completely enclosed and lever operated. Individually boxed with mounting screws furnished. U.L. listed. For use in plants, garages, loading platforms, residences, farms.

Lamp Guards

McGill Manufacturing Co., Inc., Valparaiso, Ind.

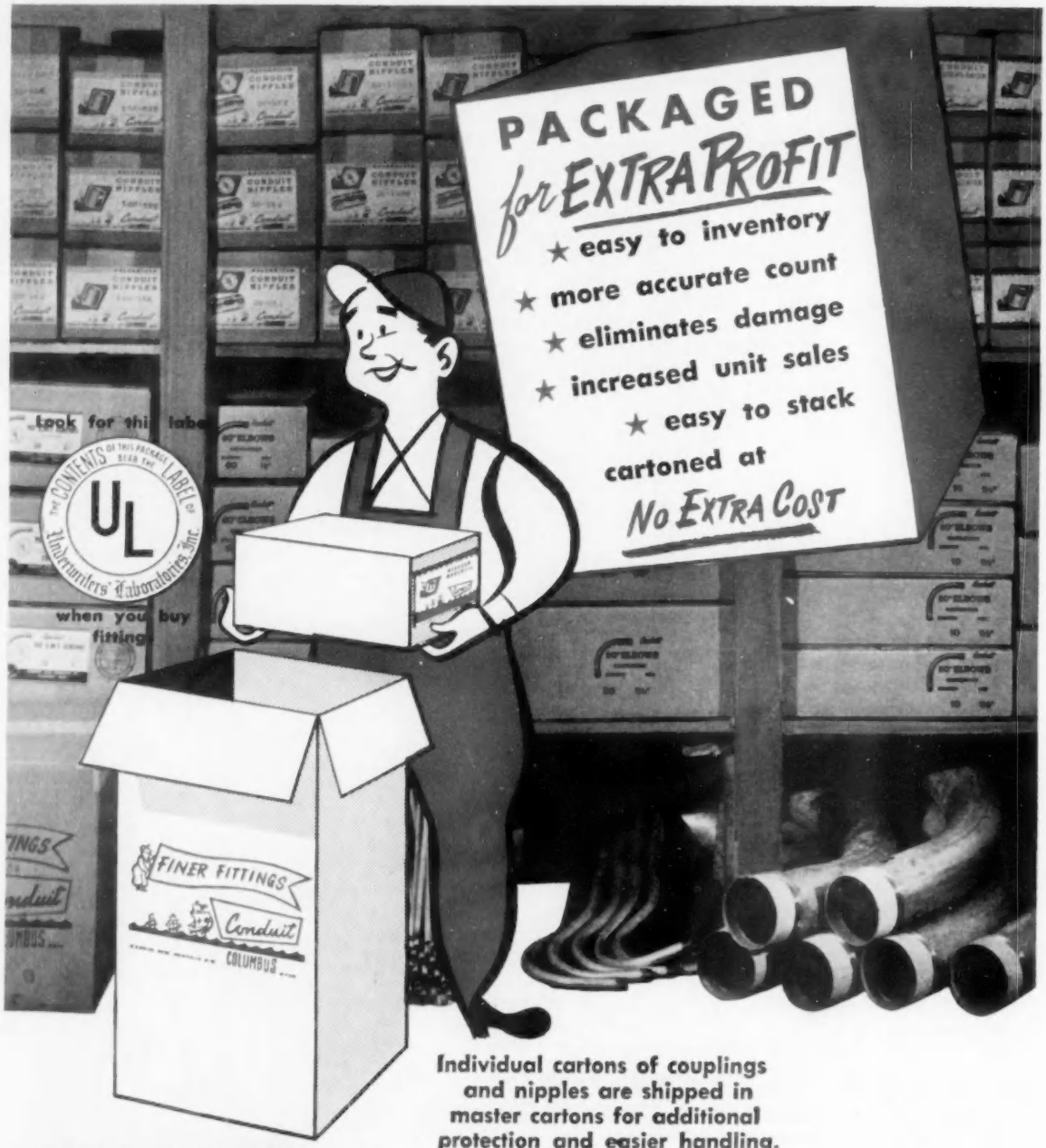
Portable lamp guards feature three-wire grounding for safety. In this grounding system the convenience outlet is designed to receive plugs having two parallel heads and U-shaped third blade for ground. The cage is grounded by means of internal handle construction with a third terminal providing contact with the attached cord. Available with the standard closed end and reflector cage, or with an open end cage having a concentrating end lens and rotating reflector. Phenolic handles equipped with a Levolier switch.



Connectors

Appleton Electric Co., Chicago 13, Ill.

Unlike other connectors for mineral insulated cable, the new units require no paste or compound to achieve a proper seal on the cable end. Instead, a neoprene "button" is locked against the cable end by tightening a nut. The "M. I." connectors are said to preserve the features of mineral insulated cable installations—non-inflammable, rugged, perfect ground, flexi-



Individual cartons of couplings and nipples are shipped in master cartons for additional protection and easier handling.

SOLD ONLY THROUGH RECOGNIZED WHOLESALERS

Conduit of COLUMBUS

CONDUIT PIPE PRODUCTS CO., COLUMBUS, OHIO

PIPE COUPLINGS • PIPE NIPPLES • ELBOWS, RIGID & E.M.T.
RUNNING THREAD • GOOSENECKS • WALL PLATES

ble, heat, compact. The style 1 connector, for threaded conduit hubs, consists of three brass parts. The style 2 connector, for use in knockouts of steel junction boxes, has only one basic component.

Coolers

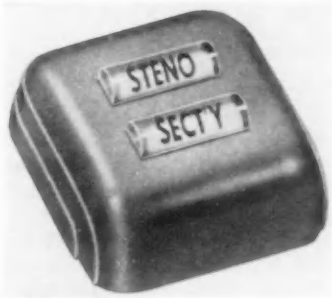
Trade-Wind Motorfans, Inc., Rivera, Calif.

Portable evaporative coolers are light enough to be carried from room to room. The units contain their own water reservoir and can be plugged into any electrical outlet. A directional grille and a 3-way switch permit operating the units for ventilation only or for complete cooling. The grilles can be adjusted to direct the air up, down or sideways. One model has a 3-gallon capacity and weighs 33 lbs. Another model, with 7 gallons capacity, weighs 46 lbs. Both incorporate dual centrifugal blowers.

Tubing, Sleeving

Alpha Wire Corp., 420 Broadway, New York 13, N. Y.

"Alphlex" line of tubing and sleeving is for industrial electronic and electrical applications. Line includes: extruded plastic tubing; impregnated tubing and sleeving (fiberglass or organic base); high temperature fiberglass sleeving; plastic coated fiberglass tubing and sleeving; silicone impregnated fiberglass sleeving; and silicone rubber coated fiberglass tubing. Line conforms to military specification and UL standards.



Push Button

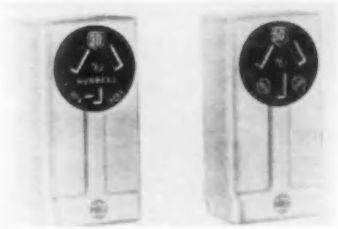
The Edwards Co., Norwalk, Conn.

Desk pushbutton has magnified selectors and 42 printed designations to save problems of lettering, printing or typing. Push button selectors are both inclined and magnified for visual ease. The 42 printed designations can be changed in a matter of seconds. Model comes in one, two, four and six button sizes.

Cable

Clifton Conduit Co., Inc., Jersey City 2, N. J.

Copper conductors of the "UF" cable are insulated with high quality thermoplastic, are color coded for convenience and are then covered with reinforced fiberglass. The parallel conductors are sealed as a unit in the thermoplastic. U. L. approved and recognized by the National Electric Code (1953). Available in sizes 14 to 4 awg., single conductor only; 14 through 10 in two conductor with and without ground; and 14 through 10 in three-conductor without ground. Cable can be used either exposed or concealed in dry, wet or corrosive areas.



Power Outlets

Harvey Hubbell, Inc., Bridgeport, Conn.

Surface type power outlet with metal cover comes in 30 and 50 amp. ratings. Both units are finished in "Trumblast" aluminum to blend with kitchen interiors. A feature of the 50 amp. outlet is a swivel nut assembly, designed to save installation time and trouble. When screw is loosened, the captive terminal swings out of the way thereby opening a channel for the insertion of wire. With wire in place, the terminal assembly swings back into position and positive contact is made by tightening the screw. The 30-amp. outlet features the L-shaped slot which prevents interchange with 50-amp. units. Conventional type screw terminals are used in this device.

Conduit

Line Material Co., Milwaukee 1, Wis.

"L-M Perma Line" conduit, a bituminized fibre product, is now available in 3½-in. I.D. size, 8 ft. long. According to the company's manager of fibre product sales, this 3½-in. size had been discontinued in 1946. The addition of the 3½-in. size brings the sizes available to nine. In 5-ft. lengths, the conduit sizes offered are 2, 4, 5 and 6 in. In 8-ft. lengths, sizes are 3, 3½, 4, 4½ and 5 in.

Fans

Ilg Electric Ventilating Co., Chicago, Ill.

Line of three improved home fans has 18-in. diameter blades, three-speed control and six-foot cords. Rated air moving capacity is 3,920 cfm., measured at three feet. "Rollaire" is a portable floor model fan with rubber wheels—fan unit can be adjusted from 42 to 62 inches above the floor. "Dualaire" unit can be used as a floor, window or table fan. The "Windowair" adjusts to fit windows from 28 to 36 inches wide. The fan unit of the first two models can be rotated through 360°.

Welding Cable

United States Rubber Co., New York 20, N. Y.

Fluted welding cable is claimed to be longer wearing on all types of welding equipment and to have greater impact resistance than even special cable constructions. The fluted jacket gives better grip and is cooler to handle since its greater surface area dissipates heat faster than conventional round welding cable, according to the manufacturer. Yellow jacket is to make the cable easier to see and to provide quick identification. The cable is called "U.S. Royal Gold Welding Cable."

Transformer Lead Wires

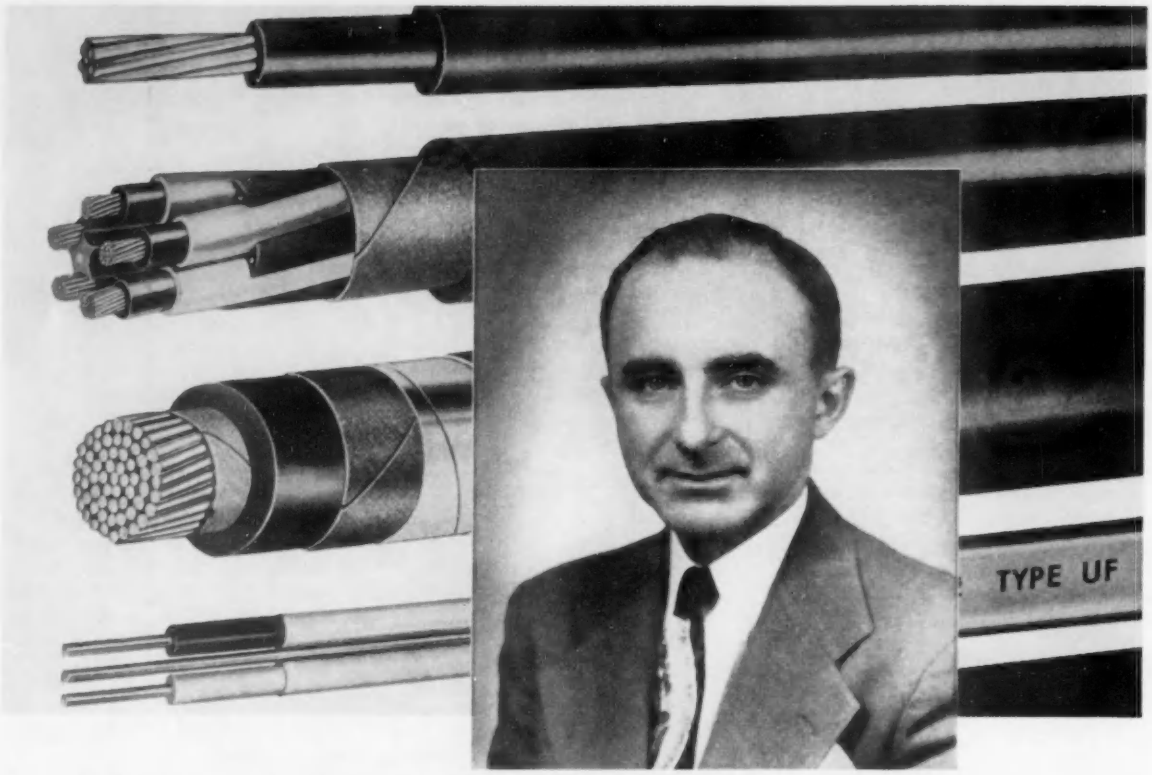
Chester Cable Corp., Chester, N.Y.

Fifteen-thousand volt transformer lead wires are designed especially for neon signs. Available in No. 10, 12 and 14 awg. stranded, bare or tinned copper conductors for operation at 5,000 and 10,000 volts a.c.

Bar Hanger

Kruse-Rieke, Auburn, Ind.

Bar-type fixture hanger is made of one rigid steel bar and requires no length adjusting and no telescoping. The one bar fits all joist and stud centers and has self measuring depth space that is claimed to give correct allowance for wall thickness.



"We have found Rome products always accepted without question - even on the toughest of specification jobs."

Richard Wehle

Vice President, WEHLE ELECTRIC CO., INC.

That is how R. J. Wehle, Vice President of the Wehle Electric Co. of Buffalo, Rochester, Binghamton and Elmira, N. Y., feels about the quality of the Rome Cable products he carries as a distributor.

And here's what Mr. Wehle says about other advantages of a Rome distributorship:

"Our relations over the years have been highlighted by the fine co-operation of their organization with ours, as well as the high quality of their products.

"Many large concerns are impersonal and unwieldy—it takes days to process the simplest of requests. With Rome we feel more like a partner and a friend and it has made our relationship a pleasure as well as a profitable one."

A quality product and personalized service are only two of the advantages of a Rome distributorship. Quick service, fast action in emergencies, and the able assistance of Rome sales engineers are others.

Like Mr. Wehle, we think of the arrangement as a partnership in selling. We know from experience that a Rome Cable distributorship can mean just that. For better profit margins on cable and conduit, sell Rome products.

It costs less to buy the best . . . *and it's profitable to sell the best*

ROME CABLE ROME, N.Y.

ROME CABLE
Corporation
ROME · NEW YORK
and
TORRANCE · CALIFORNIA

TOP OF THE NEWS . . . and its significance to you

A good year

Electrical equipment manufacturers' earnings were up 22.7 per cent in 1954. Corporate earnings reported for last year totaled $345,979,000 as against $281,834,000 for the year before. Other leaders: aircraft makers, up 70 per cent but earnings were $168,247,000; chemicals, up 20.4 per cent but earnings were $666,387,000; iron and steel, down 12.2 per cent but earnings hit the $594,064,000 mark.

Small power plants

Five electrical cooperatives, claimed to be in one of highest fuel-cost areas, have received approval to study the feasibility of small central station nuclear power plants. The study will run for one year, and will be undertaken by the Seminole Electric Cooperative, Inc. Page 110.

Bright future

A $9 billion industry now and a $20 billion industry annually a decade from now. So claims a responsible official of the electronics industry. He describes the government as the largest customer by far. A great percentage of government purchases go to national defense. The entertainment field ranks second. A quick review of the past, and a look-see into the future, of this growing field is on page 119.

GAW—in UAW's works since 1951

This year's liveliest collective bargaining issue is the guaranteed annual wage. Other than cost, other objections raised include: involuntary unemployment caused by inability of the employer to offer work; and a claimant can be disqualified for not accepting "suitable" jobs elsewhere. However, the UAW, which is leading the movement, has a plan which places no burden on a laid-off worker to look for such employment on his own initiative. The union indicates it will be more definite about describing jobs as "suitable" than are state employment agencies.

Reinstates cash discount

Sunbeam Corp. on March 14 reduced its cash discount from 2 to 1 per cent. It was to be effective April 1. Three days later the 2 per cent cash discount practice was reinstated. B. A. Graham, president, said the firm decided to withdraw the original plan ". . . since learning the viewpoint of our distributors on this matter . . ."

Drops housewares

A leading New York City full-line electrical wholesale distributor dropped all of his electric housewares lines in March. Present conditions was the reason for the action. Text of his letter appears on page 117.

New electric power project

The Federal Power Commission has licensed two Alcoa subsidiaries to build a $10 million electric power project and to operate three existing dams in Tennessee and North Carolina. The subsidiaries are Tapoco, Inc., Alcoa, Tenn., and Carolina Aluminum Co., Badin, N. C. Tennessee, where the Dixon-Yates controversy is centered, has but three privately owned utilities. The City of Memphis has laid plans to build its own plant rather than buy power from Dixon-Yates. See page 114.

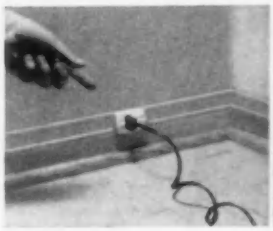
Another record

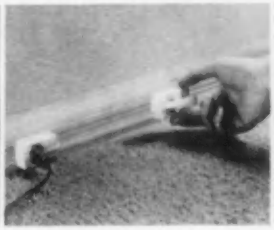
February housing starts set a record for the month. The number of dwellings started was 20 per cent above February, 1954, and up 2 per cent over January. Mortgage money is tightening a bit and will slow home sales. Some builders, who have already felt the impact, are realigning their plans. A few are said to be insisting on at least 5 per cent down on V. A. sales. Others are switching from building homes in higher to lower brackets—$16,000 scaled down to $13,000. The electrical contractor's share in building a house generally runs 3 to 4 per cent, so reductions will be included in electrical as in other work. See News For The Industry.

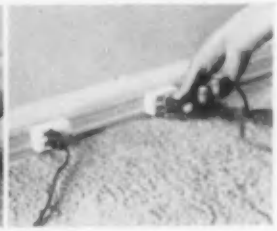
Factory wages up

Factory workers averaged $73.97 in January, says the National Association of Manufacturers. This was a 4¼ per cent rise over the previous January. The average such wage was then $70.92.

It's here!
A new,
exclusive way
to provide
movable
electric outlets!
BULLDOG EL
IF IT'S NEW . . . IF IT'S DIFFERENT . . . IF IT'S BETTER . . . IT'S
BULLDOG ELECTRIC PRODUCTS COMPANY
A Division of I-T-E Circuit Breaker Company
Export Division: 13 East 40th Street, New York 16, New York. In Canada: BullDog
Electric Products Company (Canada), Ltd., 80 Clayson Road, Toronto 15, Ontario.







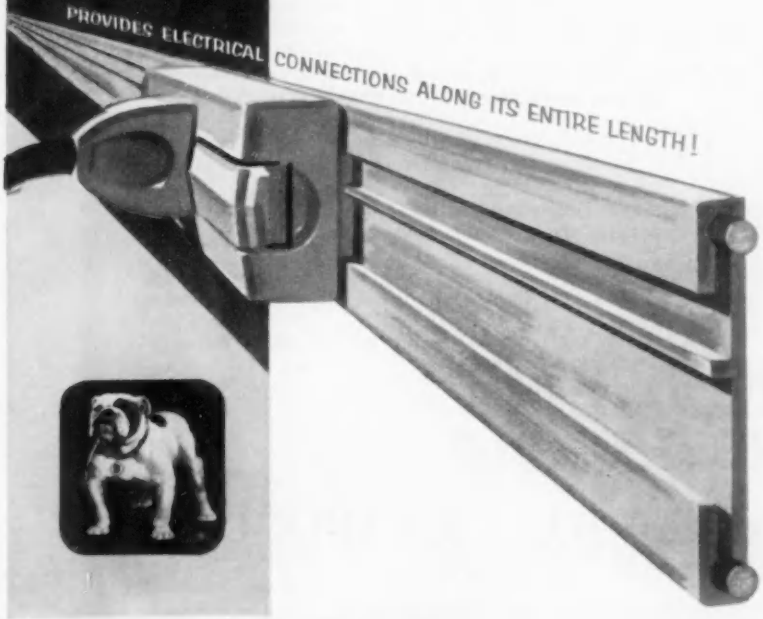
SIMPLE—Electrostrip mounts easily on walls, moldings, anywhere . . . handforms to fit any contour. It's neat, attractive in its natural ivory color to harmonize with any decorative scheme.

CONVENIENT—Outlet receptacles clamp into the strip wherever you want them . . . lock securely in place. No more poorly located fixed outlets. You can move receptacles in seconds with ease.

SAFE—Electrostrip does away with long extension cords, thus eliminating the danger of fire. Receptacles can be individually fused. It's 100 per cent safe. Listed by Underwriters' Laboratories.

ECTROSTRIP

Every inch an outlet!



Here's an amazingly easy and profitable way to cash in on new electrical wiring sales . . . provide electrical outlets that move as you move furniture, change lighting arrangements or shift office layouts. Stock and sell safe, new BullDog Electrostrip®—the modern electric wiring that provides an outlet every inch along its length.

Homes, hotels, businesses and institutions need and are demanding this most advanced electric outlet system. It does away entirely with the inconvenience of fixed wall outlets in hard-to-reach places, and the hazards of unsafe, unsightly extension cords. This means more business —*more profit*—for you.

Get in on the ground floor of BullDog Electrostrip. It's being backed by a hard-hitting advertising and sales promotion program directed to your customers. Electrostrip is available in convenient roll-strip form for fast, easy dispensing. Consult your BullDog field engineer, or write BullDog Electric Products Company, Detroit 32, Michigan, for full details.

© BEPCO

Four Steps That Mean Easier, Quicker, Safer Installation of

CRESCENT ABC ARMORED CABLE

1 FILE OR SAW GUIDED BY CUTMARK

2 BREAK ARMOR

3 PULL OUT PAPER

4 INSERT INSULATING BUSHING

NOTE CUTMARK on the fourth turn from right on armor of cable above. This cutmark (at 1½" intervals) shows the location of a prefabricated breaking line inside the armor. Only a few strokes of a file or saw guided by the cutmark, are required to cut through one outer ridge, and a bend by hand severs the armor. This results in a clean separation with no sharp edge—a safer, easier and faster job. The prefabricated breaking lines are so designed that there is no *reduction* in tensile strength, bending quality, crushing resistance and electrical conductivity of armor.

NOTE BOND WIRE UNDER ARMOR which is in contact with the under side of each convolution. This provides permanently low armor resistance. It is furnished in sizes No. 14 and 12 AWG Cable.

GENUINE ABC CONSTRUCTION provides for easy insertion of the insulating bushing because the paper under the armor readily *unwraps from under both ends* providing space to insert the bushing.

ALL GLASS BRAIDS protect the rubber insulated conductors, and are flame, moisture and rot proof. The use of ALL GLASS braid results in a cable with smaller diameter and lighter weight, being easier to handle and install.

CRESCENT WIRE & CABLE

OVER 70 YEARS EXPERIENCE

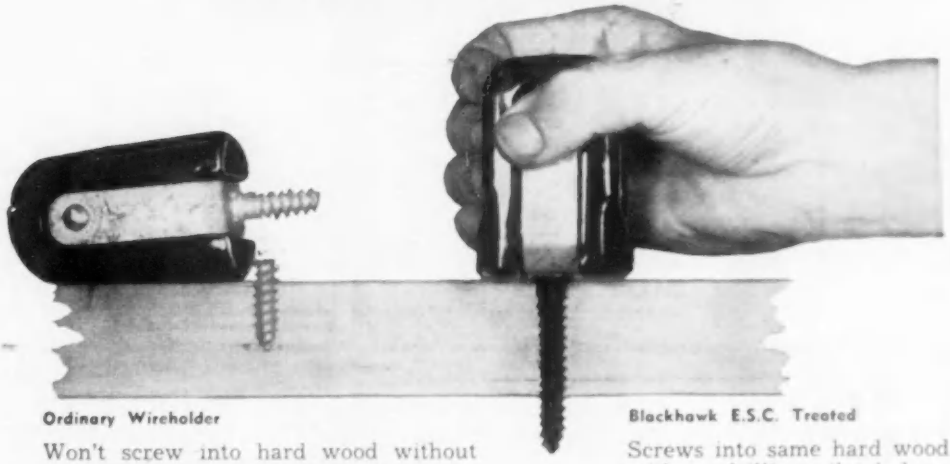
CRESCENT INSULATED WIRE & CABLE CO.

TRENTON, N. J.

NEW E.S.C.

PRE-LUBRICATED WIRE HOLDER

screws in without pilot hole



Ordinary Wireholder

Won't screw into hard wood without pilot hole. Lag-screw snaps under strain.

Blackhawk E.S.C. Treated

Screws into same hard wood — without drilling pilot hole.

Actually hard to believe, isn't it? Yet every word is true. The new Blackhawk E.S.C. treated wireholders screw into **hard wood,** without drilling pilot holes. The advantages to your customers are obvious — faster, easier installation on the job with never any problem of the lag-screw breaking. The lubricating compound E.S.C. is permanent. It won't melt off in stock regardless of temperature or humidity.

Now, **all** Blackhawk wireholders are treated with E.S.C. You can tell them by the coloration of the lag-screw. And because of their definite superiority over other wireholders, your customers are going to specify only **Blackhawk E.S.C. treated** once they know about them and use them.

FREE OFFER

Try the amazing Blackhawk E.S.C. treated wireholder yourself. Let your customers try it. Write to the address below for a free sample.

Do you have Blackhawk's new price and distributor discount schedule?

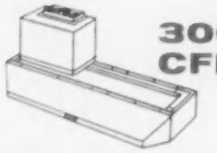
Blackhawk Industries

Specify B-I when you buy!

BLACKHAWK INDUSTRIES **Dubuque, Iowa**

ONLY *TRADE-WIND* GIVES YOU WIDEST SELECTION OF KITCHEN VENTILATORS AND HOODS

from $71.65 list . . . up

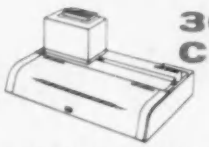


300 CFM

Trade-Wind Model **1501** Ventilator plus 39" or 42" Stationary Stainless Steel Hood —

$71.65 *LIST*

Add $11.00 for Copper

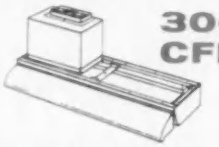


300 CFM

Trade-Wind Model **1501** Ventilator plus 30" to 42" Expansion Hood, Stainless Steel or Copper —

$83.40 *LIST*

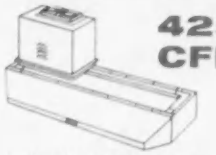
Add $2.95 for 42" to 54" Hood



300 CFM

Trade-Wind Model **1501** Ventilator plus 39" or 42" Fold-Under Hood, Stainless Steel —

$91.65 *LIST*

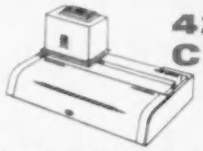


425 CFM

Trade-Wind Model **2501** Ventilator with 4 speeds, plus 39" or 42" Stationary Stainless Steel Hood —

$91.20 *LIST*

Add $11.00 for Copper

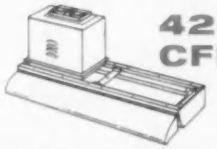


425 CFM

Trade-Wind Model **2501** Ventilator with 4 speeds, plus 30" or 42" Expansion Hood, Stainless Steel or Copper —

$102.95 *LIST*

Add $2.95 for 42" to 54" Hood



425 CFM

Trade-Wind Model **2501** Ventilator with 4 speeds, plus 39" or 42" Fold-Under Hood, Stainless Steel —

$111.20 *LIST*

550 CFM

Trade-Wind Model **3501** Super Ventilator with 4 speeds, plus 39" or 42" Stationary Stainless Steel Hood —

$142.25 *LIST*

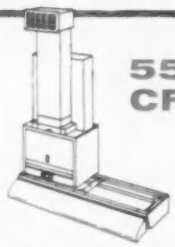
Add $11.00 for Copper

550 CFM

Trade-Wind Model **3501** Super Ventilator with 4 speeds, plus 30" to 42" Expansion Hood, Stainless Steel or Copper —

$154.00 *LIST*

Add $2.95 for 42" to 54" Hood



550 CFM

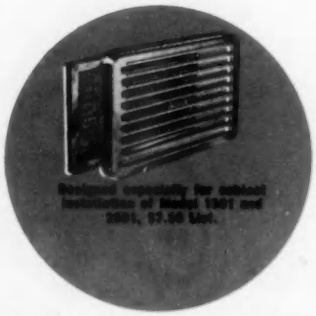
Trade-Wind Model **3501** Super Ventilator with 4 speeds, plus 39" or 42" Fold-Under Hood, Stainless Steel

$162.25 *LIST*

BUILT-IN BACK DRAFT DAMPERS

These efficient dampers are built into all models and eliminate buying an extra accessory.

FILTER GRILLES



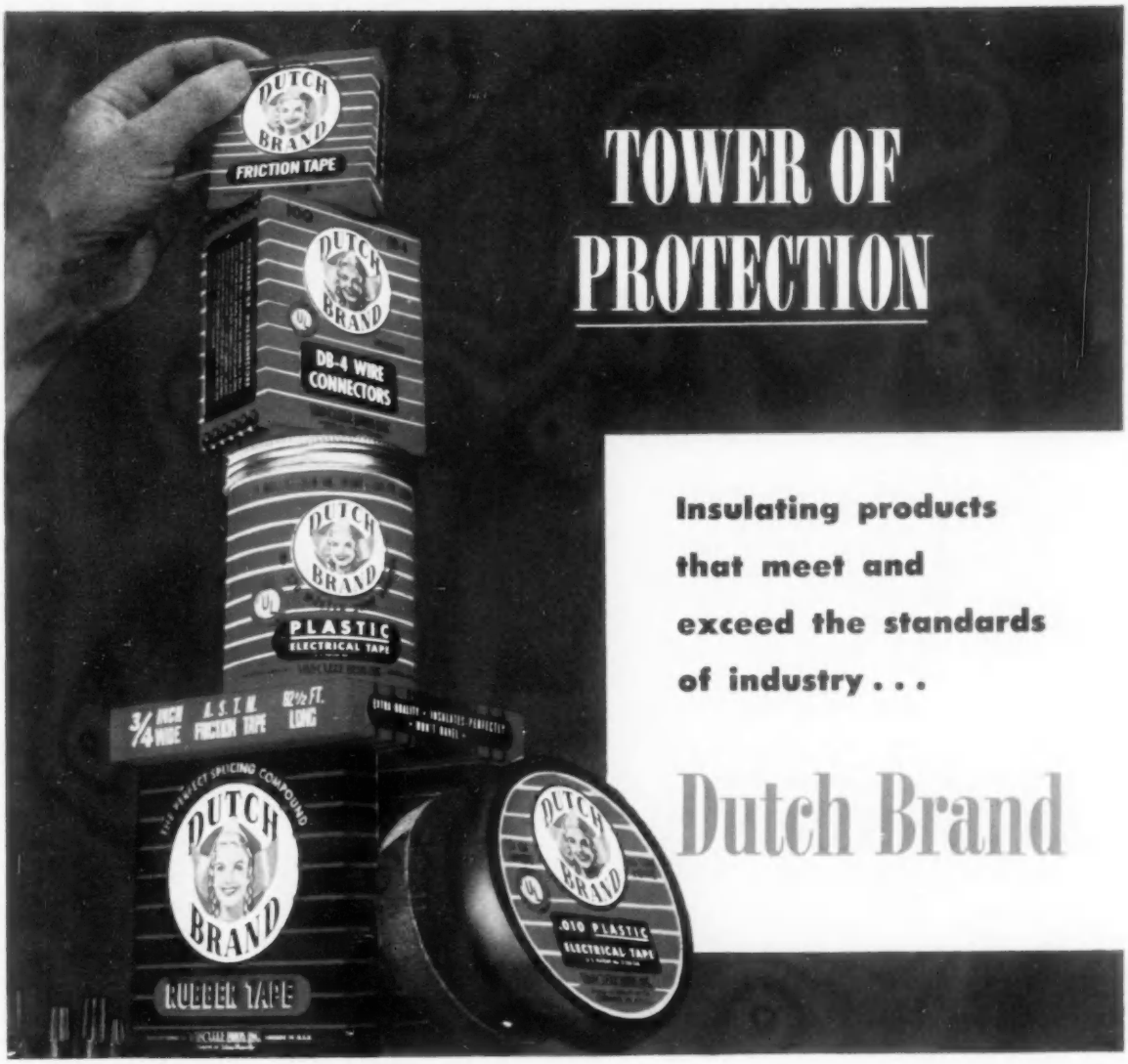
Designed especially for cabinet installation of Model 1501 and 2501, $7.50 List.

HOOD LIGHT

Easy-to-clean light for use with Expansion and Stationary Hoods. Twin sockets and independent switch, $7.50 List.

Trade-Wind Motorfans, Inc.

7755 PARAMOUNT BLVD., DEPT. EW, RIVERA, CALIFORNIA



DUTCH BRAND PLASTIC ELECTRICAL TAPES

Thin, strong, flexible with unusual resistance to destructive elements. Three thicknesses: .007", .010", .020".

DUTCH BRAND VINYL COLOR TAPE

Nine colors, four widths for all insulating, coding, indexing, U. L. listed.

DUTCH BRAND RUBBER TAPE

The finest tape of its kind. Resists up to 18,000 volts through a single thickness. Fuses perfectly.

DUTCH BRAND FRICTION TAPE

An industry favorite for over 40 years. For perfect adhesion, for longest life choose Dutch Brand.

"DB" WIRE CONNECTORS

Get full insulation protection from these vibration-proof, weatherproof long skirt connectors.

Write for descriptive literature and technical data.

Whatever the requirements of the job here is the product to meet the specifications. Wherever electrical work is done, the symbol of perfect insulation is the Dutch Brand trade mark. Electrical contractors, plant maintenance electricians, electronic technicians, and electrical manufacturers all agree Dutch Brand represents the finest. Friction Tape, Rubber Tape, Plastic Electrical Tape and "D.B." Wire Connectors. Only from Dutch Brand is this complete line available.

JOHNS-MANVILLE DUTCH BRAND VAN CLEEF DIVISION

Johns-Manville
DUTCH BRAND PRODUCTS
VAN CLEEF BROS., INC. DIVISION
7800 WOODLAWN AVENUE CHICAGO 19, ILL.

Filter shows why . . .

bugs don't go for but *customers* do

. . . especially during the big General Electric Yellow Bulb Promotion starting May 16!

BUGS buzzin' 'round a porch light. Bah, what a nuisance! Swatting and ducking these uninvited guests can turn a nice, quiet summertime evening into a general retreat.

That's where General Electric Yellow Bulbs come to the rescue. Unlike ordinary bulbs that attract night flying insects with their brightness, G-E Yellow Bulbs don't send out any invitations. Night-flying insects are comparatively blind to them. Don't see them. Don't gather around. The photo at right shows how General Electric Yellow Bulbs look to bugs . . . dark and uninviting.

EVERYONE OF YOUR DEALERS can do a bang-up job of selling yellow bulbs for porch lights, backyard lighting, garage lights, any outdoor installation during General Electric's promotion starting May 16. Get them to display G-E Yellow Bulbs with insecticides and fly-swatters. And, of course, with regular bulbs, too. And don't forget to tell your dealers that yellow bulbs don't compete with regular bulb business. They're strictly extra sales that mean extra volume for them . . . and you.

You'll have lots of backing—the Jane Froman TV show, magazine advertising, point-of-sale displays—all you need to reap big summertime bulb profits! Start now to get your dealers' orders for a good supply of General Electric Yellow Bulbs.

G-E YELLOW BULBS MEAN EXTRA VOLUME FOR YOUR CUSTOMERS . . . AND YOU!

GET THEM TO TIE IN WITH ADVERTISING LIKE THIS . . .

JANE FROMAN TV SHOW: JUNE 2, 9

SATURDAY EVENING POST: FULL PAGE, FULL COLOR—MAY 21

G-E Yellow Bulbs

Bright light attracts night-flying insects. A scientifically designed blue glass filter (above) shows how an ordinary bulb and a G-E Yellow Bulb look to bugs when lighted. Notice how bright the ordinary bulb looks. It acts like a magnet for bugs! But the G-E Yellow Bulb is almost invisible. Bugs can't see it...aren't attracted to it.

FREE DISPLAY MATERIAL: AVAILABLE FROM G-E!

GENERAL ELECTRIC

Now industry's three-phase motors can have full three-phase protection with standard in-stock motor control!

Many motor users have proved *two* overload relays are inadequate protection for three-phase motors. In fact, widespread motor burnouts due to inadequate motor protection have caused amendment of Section 4327 of the National Electrical Code. The code now permits authorities to *require* three overload relays in three-phase motor control . . . and this provision is already being enforced in some areas. Many safety experts and power engineers say the time is not far off when three-phase motor control with less than three overload relays will be unacceptable.

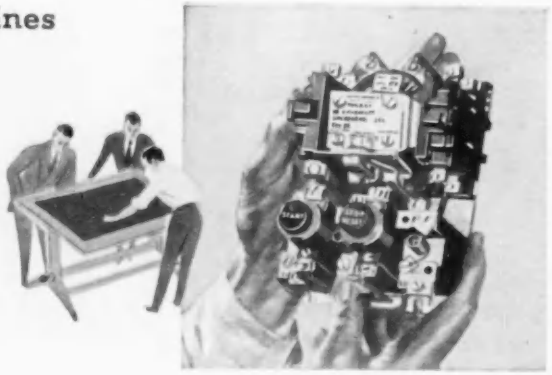
The use of three overload relays is not new. Many industrials plagued by recurring motor burn-outs and the resulting intolerable operating interruptions have changed to three-relay control. But such changeovers have been slow to effect and costly as no standard control was available with three overload relays. Special constructions and enclosures have always been required.

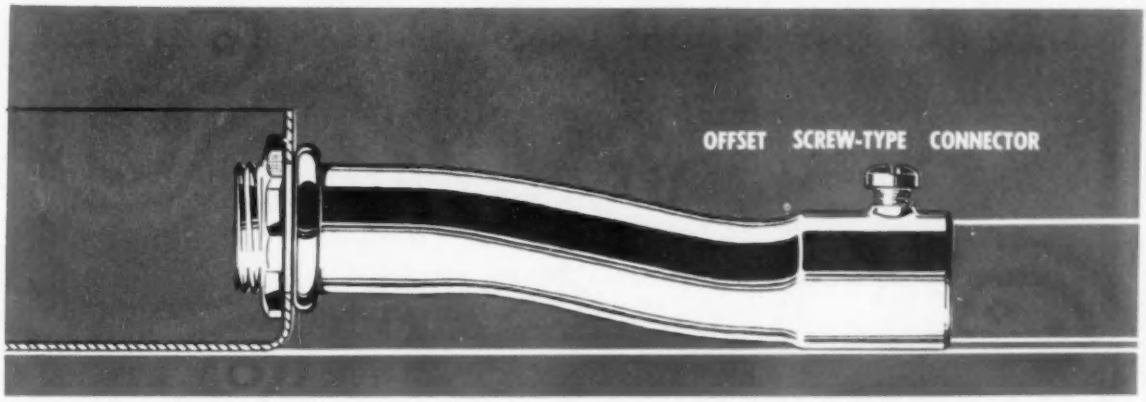
The BIG news today is that this is no longer true. The new Cutler-Hammer ★ ★ ★ Motor Control offers *three* overload relays in all standard starter constructions and enclosures. You pay only for the third relay, nothing additional for special engineering or manufacture. No extras. No delays. It is *in stock* at your nearby Cutler-Hammer Authorized Distributor. Order it today and use it tomorrow. CUTLER-HAMMER, Inc., 1327 St. Paul Avenue, Milwaukee 1, Wis.

CUTLER-HAMMER
★ ★ ★
MOTOR CONTROL
C-H

For designers of machines and special control panels

The unit panel construction of Cutler-Hammer ★ ★ ★ Motor Control makes it easy to incorporate starters with three overload relays. Starters mount in place with only three screws, require no more space than starters with only two overload relays. NEMA Sizes 0, 1 and 2 starters and all parts thereof are now available as components. Also a complete companion line of control relays with quickly interchangeable NC-NO contacts. Be sure you have the latest design data on this advanced equipment. Write or wire today.





This exclusive offset connector made by

Tube·weld

presents a new concept in electric fitting design!

Bending offset connectors wastes time and money! Tube-Weld eliminates this costly, time consuming chore with this new concept in design. Developed after careful study of electrical contractor needs – this unique fitting allows fast, economical connecting and wiring. Tube-Weld's one-piece, thin wall steel tubing means increased inside diameters. Its longer length means greater bearing support and rigidity of conduit.

You can put your confidence in Tube-Weld fittings:

- in the oversized hardened steel set screws that are *staked for permanency!*
- in the uniformly flat connector shoulders that assure perfect centering in the box.
- in the rolled instead of cut threads which have 54% greater stripping strength and 66% greater snapping strength according to an independent testing laboratory report.
- in the smooth, lustrous zinc finish and carefully beveled edges—your assurance of workmanship that is unsurpassed in the electric fitting field.

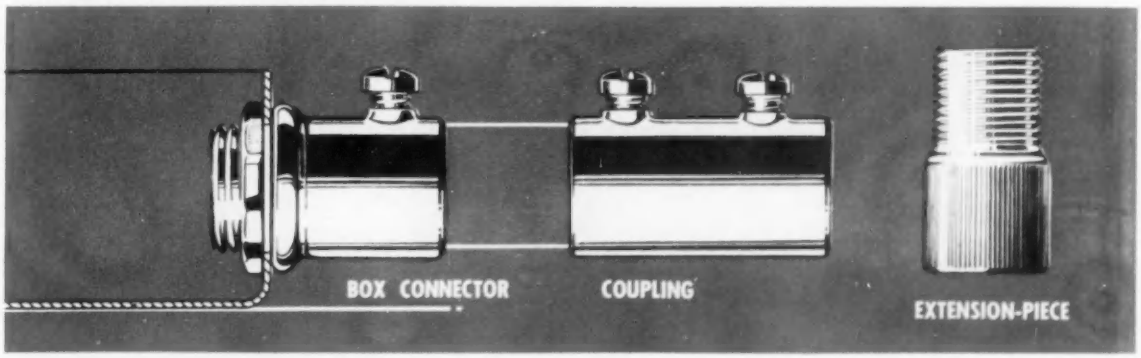
Tube-Weld fittings are available in ½", ¾" and 1" sizes. They are carefully and smartly boxed for ease in shelving and identification. For descriptive brochure and additional information, write or call: **Electric Tube Products**

74-16 Grand Ave., Maspeth (N.Y.C.) N.Y.
DEfender 5-8000

UL

CONNECT WITH ETP FOR ECONOMY

A Division of Berger Machine Products, Inc.

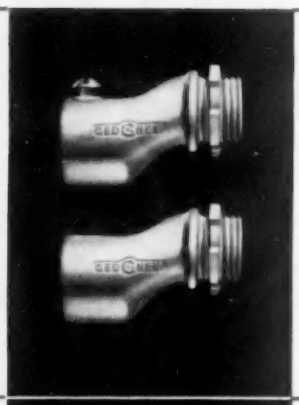


SELL ROCK-BOTTOM INSTALLATION COSTS...

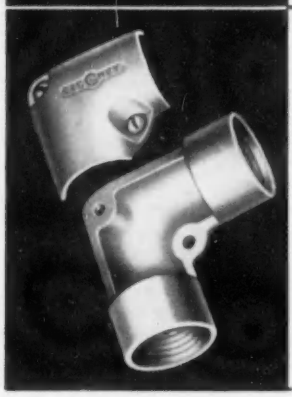
SELL GEDNEY!

GEDNEY FITTINGS are machined and threaded with utmost accuracy... smooth-finished, with no metal particles or burrs... made of malleable iron to eliminate breakage... individually inspected to ensure absolutely top quality. That's why they're quickest, least costly to install... why they win customers for you and bring the repeat orders that are the backbone of business profits.

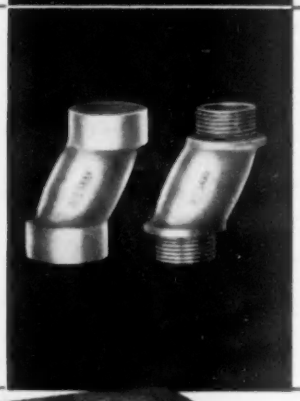
Gedney 90° Pull-In Ells and Adapters with Neoprene gasketed cover and self-retaining screws. These fittings may be used to convert a straight box connector into a 90° connector, or as a 90° box connector for rigid standard pipe coupling. Ells have female threads at both ends. Adapters have male threads at one end and female at the other. Made of malleable iron and cadmium plated. Sizes ½" to 2".



Gedney Offset Connectors—eliminate the necessity for offsetting conduit at knockout entrances of standard boxes. Threaded for rigid, set screw for EMT. Made of malleable iron, cadmium plated, in sizes from ½" to 2".



Gedney Corner Pull-In Elbows are outstanding for space saving, machine wiring, easy wire pulling. Malleable iron, cadmium plated. Made in ½", ¾", 1", 1¼", 1½" and 2" sizes.



Gedney Offset Coupling — female both ends—for use as an offset between boxes. Can also be used with conduit nipple (Gedney 7-50 series) to give more room in box than otherwise possible.
Gedney Offset Nipple, male both ends.

Both of these fittings are made of malleable iron, cadmium plated. Available in sizes from ½" to 2".

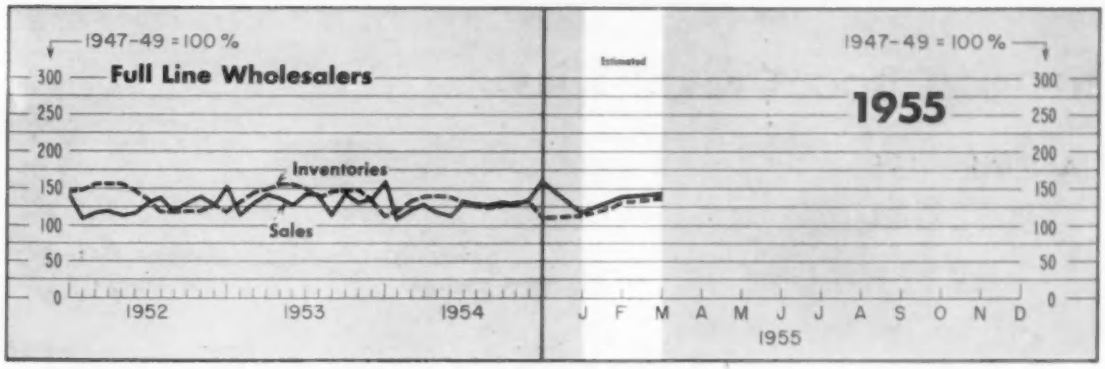
GEDNEY FITTINGS FIT

GEDNEY
ELECTRIC COMPANY

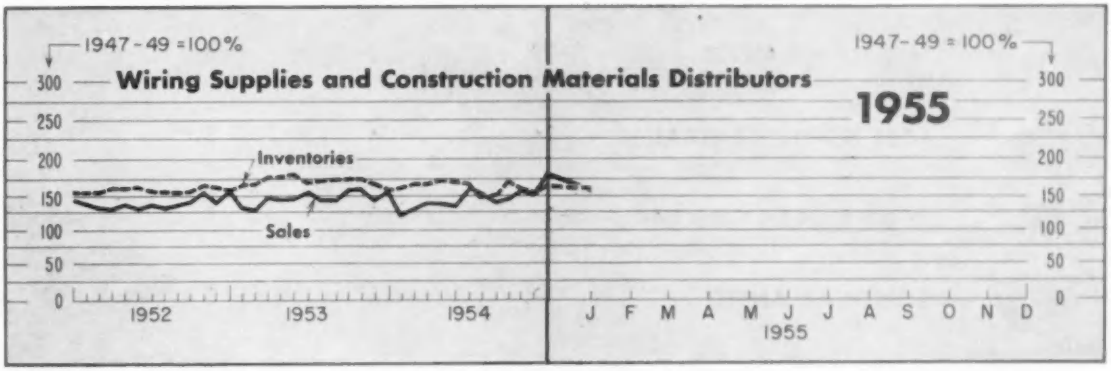
GEDNEY

RKO BLDG. • RADIO CITY • NEW YORK 20
Foundry, Factory and Shipping Point: Terryville, Conn.

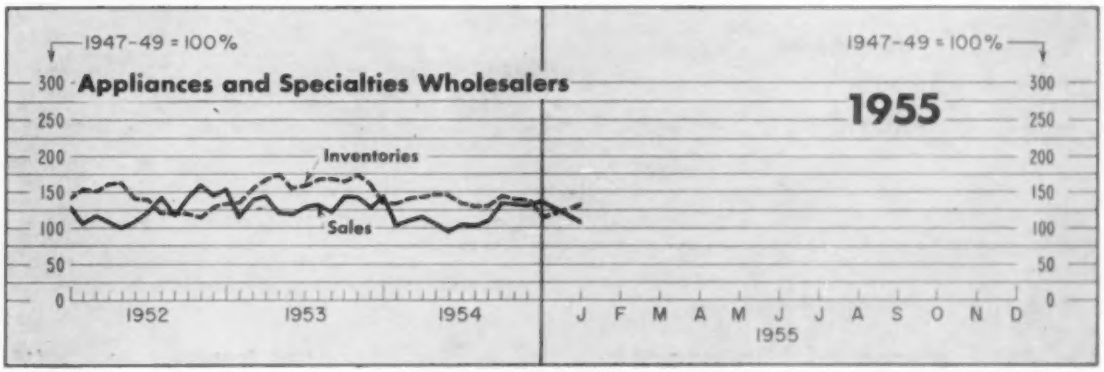
Business Index: NATIONAL PICTURE



	INDEX (ABOVE)					% CHANGE
	Jan. 1955	*Dec. 1954*	*Jan. 1954*	*Jan 1953*	*Jan. 1952*	*1955 from 1954*
Sales	128	158	112	112	110	+13
Inventories ..	118	119	122	126	149	——



	INDEX (ABOVE)					% CHANGE
	Jan. 1955	*Dec. 1954*	*Jan. 1954*	*Jan 1953*	*Jan. 1952*	*1955 from 1954*
Sales	160	177	122	127	139	+18
Inventories ..	162	167	164	169	151	——



	INDEX (ABOVE)					% CHANGE
	Jan. 1955	*Dec. 1954*	*Jan. 1954*	*Jan 1953*	*Jan. 1952*	*1955 from 1954*
Sales	107	134	107	114	105	+3
Inventories ..	129	122	136	139	154	——

SOURCE: Bureau of the Census. February-March projection is by this publication. Per cent change in sales is January 1955 from January 1954

Business Index: REGIONAL ANALYSIS

ELECTRICAL GOODS WHOLESALERS

JANUARY 1955

	Sales (% Change)		Inventories (% Change)	
	From Dec. 1954	From Jan. 1954	From Dec. 1954	From Jan. 1954
NEW ENGLAND	−28	− 5	+ 2	+ 3
MIDDLE ATLANTIC	−18	+12	− 4	−13
EAST NORTH CENTRAL	−24	+ 4	− 3	− 7
WEST NORTH CENTRAL	−21	+10	0	+ 1
SOUTH ATLANTIC	−19	+ 6	+ 3	0
EAST SOUTH CENTRAL	−17	+20	+21	−12
WEST SOUTH CENTRAL	− 8	+42	− 2	0
MOUNTAIN	——	——	——	——
PACIFIC	−21	+25	+ 6	+ 4

Other Figures of the Month

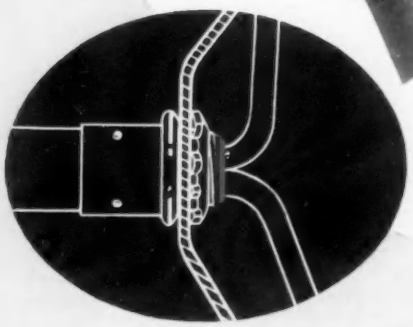
		Latest Month	Preceding Month	Year Ago	1946 Averages
Private Expenditures for new Construction (in millions)	February	$1,986	$2,061	$1,637	$803
Public Expenditures for New Construction (in millions)	February	$ 650	$ 726	$ 709	$197
Personal Income (seasonally adjusted, in billions) ..	January	$290.7	$291.4	$284.9	$178.0
Farm Income (seasonally adjusted, in billions)	January	$ 15.2	$ 14.9	$ 17.0	$ 16.9
Housing Starts (in thousands) ..	February	90.0	88.0	75.2	55.9

Red Throat

B-M 21B, THE NEW INSULATED THROAT INDENTER CONNECTOR FOR E.M.T.

Four Ways Finer

1. Protruding rounded red plastic lip of bushing prevents cutting of insulation—eliminates shorts.
2. Full thread screws into all conduit fittings. Lip of RED THROAT bushing protects thread from damage.
3. Deep dished eight pronged lock nut is easier to drive on—screws flush to shoulder and digs into metal of box for vibration proof positive ground.
4. Permanent locked-in bushing insures smooth burr-free raceway for easy fishing. No extra work and costs no more.



Briegel, the Original Indenter Fittings are neater in appearance, easier and faster to use. Installation is simple and less expensive. Two quick squeezes sets them forever. Try B-M Indenter Fittings and get more profits from each job!

ALL BRIEGEL FITTINGS ARE U. L. APPROVED AS CONCRETE-TIGHT

Order from Your Wholesaler!

All B-M Indenter Fittings are U.L. Approved as concrete-tight and for general use (File Card E10863). Also comply With Federal Specifications W-F-406.

UL

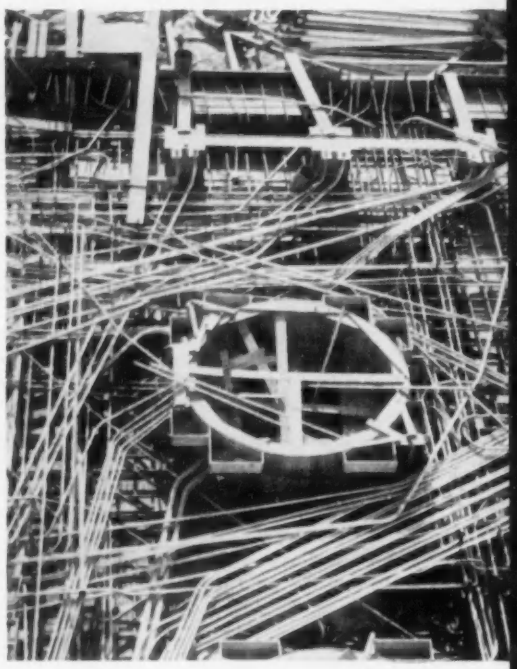
BM TELESCOPE SYSTEM

BRIEGEL METHOD TOOL CO.

GALVA • ILLINOIS

Warehouse Stocks in Principal Cities for Immediate Delivery!

No more on-the-job thread rusting worries



with EXCLUSIVE PITTSBURGH STANDARD GALVANIZED THREADS ON HOT-DIP GALVANIZED CONDUIT

Here's the development which has meant a revolutionary step forward to contractors and plant engineers—Pittsburgh Standard's exclusive new process of galvanizing threads on hot-dip galvanized conduit. Threads stay bright, clean, rust-free!

With no rusting in storage or on the job, and no more expensive thread chasing, hours and dollars are saved. No wonder the men who use hot-dip galvanized conduit are switching to Pittsburgh Standard—here's a bonus from our extraordinary new *Morrisville plant which dramatically shows why Pittsburgh Standard is the "Standard of the Trade."

Why not try it, and see for yourself?

Famous "Standard of the Trade" Products

RIGID STEEL CONDUIT
All Finishes

ELECTRICAL METALLIC TUBING
ELBOWS • COUPLINGS • FITTINGS

**Galvanized threads on all sizes from the Morrisville plant, and on sizes 2-in. and larger from the Etna plant.*

PLANTS AT MORRISVILLE & ETNA, PA.

WHOLESALERS IN PRINCIPAL CITIES

Wholesale Price Index for 62 Electrical Products

Product (1947-49=100)	Feb 1955	Jan. 1955	Feb. 1954
Copper Wire, bare. Unit: pound	144.1	132.8	132.8
Building Wire, type R. Unit: M feet	111.6	105.0	87.2
Varnished Cambric Cable. Unit: M feet	94.9	92.0	73.7
Non-metallic Sheathed Cable. Unit: M feet	144.7	144.7	145.4
Flexible Cord, type SJ. Unit: M feet	112.6	113.4	123.3
Lighting Panelboard, face type. Unit: each	115.4	115.4	115.4
Lighting Panelboard, circuit breaker type. Unit: each	122.4	122.4	122.4
Safety Switch, 2 Pole, type A, 250 volts. Unit: each	145.7	145.7	145.7
Safety Switch, 3 Pole, type C, 575 volts. Unit: each	140.2	140.2	140.2
Air circuit breaker, 250 volts. Unit: each	142.3	142.3	142.3
Power Panel, fuse type, 250 volts. Unit: each	120.3	120.3	122.0
Power Panel, circuit breaker types. Unit: each	126.8	126.8	126.8
Motor Control, a.c., 25-30 hp., 400-440 volts, combination starting switch. Unit: each	145.6	145.6	145.6
Motor Control, a.c., 25-30 hp., 220 volts. Unit: each	137.4	137.4	137.4
Motor Control, a.c., 50 hp., 440 volts. Unit: each	146.5	146.5	146.5
Motor Control, a.c., 75 hp., 440 volts. Unit: each	138.1	138.1	138.1
Motor Control, d.c., 10 hp., 239 volts Unit: each	153.2	153.2	153.2
Renewable Cartridge Fuse, 250 volts. Unit: each	110.4	110.4	110.4
Non-renewable Cartridge Fuse, 600 volts. Unit: each	115.6	115.6	115.6
Plug Fuses, 125 volts, non-renewable. Unit: each	101.1	101.1	101.1
Motor, d.c., 1/6 hp., 115 volts. Unit: each	141.4	141.4	141.4
Motor, a.c., 1/4 hp., 110-115 volts. Unit: each	107.2	107.2	111.8
Motor, a.c., 1/2 hp., 220-240 volts. Unit: each	109.6	109.6	118.3
Motor, a.c., polyphase, induction, 3 hp., open sleeve bearing. Unit: each	121.4	122.9	122.7
Motor, a.c., polyphase, induction, 3 hp., ball bearing. Unit: each	125.9	127.5	129.6
Motor, a.c., polyphase, induction, 10 hp., open sleeve bearing. Unit: each	126.4	129.1	129.1
Motor, a.c., polyphase, induction, 10 hp., ball bearing. Unit: each	135.0	135.0	135.0
Motor, d.c., 5 hp. Unit: each	140.1	140.1	140.1
Fan, under 12 inches. Unit: each	110.4	110.4	110.4
Fan, propeller type, 24-30 in. wheel diameter, direct connected. Unit: each	143.6	143.6	143.6
Drill, production line, 1/4 in. Unit: each	115.6	115.6	112.0
Drill, production line, 1/2 in. Unit: each	111.5	111.5	107.0
Saw, production line, 6-8 in. Unit: each	99.1	99.1	103.7
Pliers, 6-in., long nose. Unit: each	164.1	164.1	164.1
Lamp, 60-watt, 110, 115, 120 and 125 volts. Inside-frosted. Unit: each	147.2	147.2	136.9
Distribution Transformer, 15 kva. Unit: each	130.5	130.5	130.5
Distribution Transformer, 45-50 kva. Unit: each	124.4	125.5	125.5
Dry Type Transformer, 15 kva. Unit: each	122.9	122.9	122.8
Dry Cell Battery, flashlight, type D. Unit: each	149.3	149.3	149.3
Dry Cell Battery, portable radio "B" pack 67 1/2 volts. Unit: each	123.4	115.1	115.1
Dry Cell Battery, general purpose, No. 6 type 1 1/2 volts. Unit: each	140.1	140.1	140.1
Voltmeter, portable type, 3 1/2-6 1/2 inches, 0-300 volts. Unit: each	164.8	164.8	154.3
Ammeter, portable type, 4-6 1/2 inches. Unit. each	157.5	157.5	120.9
Watt-meter, for instrument transformer, 100-150 volts. Unit: each	138.1	138.1	135.0
Toaster, automatic, "pop-up." Unit: each	109.0	110.5	106.8
Iron, under 4 pounds. Unit: each	Discontinued as of January 1955		
Cooking range, standard size. Unit: each	104.8	104.8	105.1
Washing Machine, nonautomatic, wringer type. Unit: each	106.5	106.0	107.1
Washing Machine, automatic. Unit: each	102.1	102.1	104.1
Ironer, table model. Unit: each	115.5	115.5	115.6
Ironer, portable model. Unit. each	111.3	102.0	100.5
Vacuum Cleaner, upright. Unit: each	108.0	108.0	107.1
Vacuum Cleaner, tank. Unit: each	106.2	106.2	110.5
Refrigerator, capacity 7.4-9.5 cubic feet and over. Unit. each	107.4	107.4	106.1
Home Freezer Chest, 8-12.4 cubic feet. Unit: each	98.9	98.9	108.6
Water Heater, 52 gallon tank, 230 volt a.c.	105.2	105.2	112.2
Radio, table model. Unit: each	88.1	88.1	88.2
Radio, console model, radio-phonograph combination. Unit: each	97.8	97.8	97.8
Radio, portable model. Unit: each	91.9	91.9	95.4
Television, table model. Unit: each	68.4	68.4	73.0
Television, console model. Unit: each	68.6	69.0	73.8
Radio-television-phonograph combination. Unit: each	73.5	73.5	76.5

Source: Bureau of Labor Statistics

THE GREATEST NAME IN ELECTRICAL WIRE AND CABLE

Exclusive self-contained wiring system by General Cable! 1953 National Electrical Code approved for general use in 0-600 volt circuits.

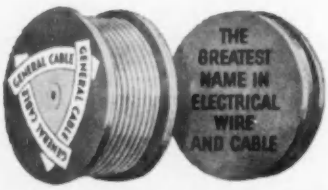
Here's Why! Safety m.i. Wiring acts as its own conduit . . . can be installed in one operation with standard switches and plug-in boxes. Easily trained, yet rigid . . . it conforms to the most difficult job layouts. You can clamp it or strap it. Safety m.i. Wiring will actually outlast the building where you use it!

No other wiring gives you this unique combination of properties: neatness, compactness and flexibility . . . mechanical ruggedness and inertness to exposure . . . resistance to flame, heat, vapor, moisture, oil, solvents, and even aging!

Approved by the 1953 National Electrical Code for general use up to 0-600 volts . . . Safety m.i. Wiring has proved ideal for lighting, power and control circuits . . . machine tools . . . stores and institutions . . . everywhere that extra protection is important! Your friendly General Cable Representative will give you the facts on many *actual* installations.

Whether you sell or install Safety m.i. Wiring our free brochure on 'installation tips' will give you many practical ideas plus complete range of available sizes. Call on any sales office today!

GENERAL CABLE
CORPORATION



BARE, WEATHERPROOF, INSULATED WIRES and CABLES FOR EVERY ELECTRICAL PURPOSE

GENERAL CABLE CORPORATION
Executive Offices: 420 Lexington Ave., New York 17, N. Y.

SALES OFFICES: Atlanta • Baltimore • Boston • Buffalo Chicago • Cincinnati • Cleveland • Dallas • Denver • Detroit Erie (Pa.) • Greensboro (N. C.) • Houston • Indianapolis Kansas City • Lincoln (Neb.) • Los Angeles • Memphis Milwaukee • Minneapolis • New Haven • Newark (N. J.) New York • Philadelphia • Pittsburgh • Portland (Ore.) Richmond (Va.) • Rochester (N. Y.) • Rome (N. Y.) St. Louis • San Francisco • Seattle • Springfield (Ill.) Syracuse • Tampa • Tulsa • Washington, D. C.

A Cold Spring?

Along with robins and crocuses, we've come to look upon the kick-off of the annual Electric Housewares Gift Campaign as a harbinger of spring. But this spring could be a cold one for the campaign. As a matter of fact, this may be the year when large numbers of electrical wholesale distributors give electric housewares the freeze.

The signs are certainly here. And they are no longer just threatening words. They're in the form of action. This kind of action. Top distributors giving up the fight and dropping electric housewares (top lines, too). Top distributors de-emphasizing electric housewares in favor of more profitable and less troublesome products. The impact of this trend already has been felt. Some discerning manufacturers see it as one of the main causes of the 7.1 per cent decline in electric housewares sales last year.

Let's face it; that could be only the start. After all, the full-functioning electrical distributor plays second fiddle to no one in the wholesale distribution of electric housewares. It would be more accurate to say that he's practically the whole string section. The *This Week* Magazine study, outdated though it might be, shows that electrical distributors—and specifically those who handle apparatus and supplies *plus* electric housewares—accounted for 56.7 per cent of the sales of 14 manufacturers. For the sake of comparison, jewelry wholesalers ran second—with 6.8 per cent.

Another dimension was added to this statistical picture when Sam Fingrutd, chairman of NAED's electric housewares committee, recently said at an industry meeting, "In every city there may be 10 or 15 (electric housewares) distributors with 4 or 5 doing 85 per cent of the selling and promotional effort and possibly getting 85 per cent of the business. But that extra 15 per cent that goes down the drain could mean the difference between profit and loss to these important distributors."

Continuing in this vein he reached the heart of the matter: "Until—and not until—you manufacturers recognize the fact that your franchise means something and until you recognize the fact that it takes more than printing the word WHOLESALE on stationery, or buying a line of wire or fixtures or a few miscellaneous electric housewares, to make an account worthy of being called Your Distributor, then you are not only inviting the situations that exist today—you are begging for them. And you are killing your good distributors just as much as if you were feeding them slow doses of arsenic."

It is this diluted distribution that helped to drag down electric housewares sales last year (to $681,409,450, according to *Electrical Merchandising's* statistical issue). The chances are that it will again this year. And the Electric Housewares Gift Campaign, well conceived and professionally managed though it is, stands to fall short of the billion dollar target that was set up in 1951—and scheduled to be hit in 1955.

George Gangemuller

EXECUTIVE EDITOR

You can pull these plugs at full load . . . SAFELY!

Circuit-Breaking Arktite

PLUGS AND RECEPTACLES

20 amp. to 400 amp.—250V D.C.; 600V A.C.

SAFE at all times—even if you pull an *Arktite* plug to disconnect an energized motor or appliance in an emergency!

You don't have to open the disconnect switch before withdrawing an *Arktite*. Arcs created as line and load poles disengage are confined in deep, insulated arcing chambers—are instantly snuffed out by pressure-deionization and lack of oxygen. There's no possible danger of flashover injuring personnel or destroying property.

Contact your Crouse-Hinds Distributor, nearest Crouse-Hinds Office or Representative for complete information.

NEW, Re-Designed *Arktite*...

Features new pressure connectors — new easier-to-wire 1-piece interior assemblies — new easier-to-interchange plug and receptacle interiors — new plug adaptability to any type and size cable.

Fully interchangeable with older style. Same price. Currently available only in 30 amp. size, in 2-, 3- and 4-poles.

● Operated like a giant switchboard, this *Arktite* installation with variations in power, frequencies and voltages is used to speed up machine tool testing. Plugs can be inserted and withdrawn from "live" receptacles without using a disconnect switch.

A NATIONWIDE DISTRIBUTION exclusively through ELECTRICAL DISTRIBUTORS

CROUSE-HINDS COMPANY

SYRACUSE 1, N. Y.

OFFICES: Birmingham, Boston, Buffalo, Chicago, Cincinnati, Cleveland, Dallas, Denver, Detroit, Houston, Indianapolis, Kansas City, Los Angeles, Memphis, Milwaukee, New Orleans, New York, Philadelphia, Pittsburgh, Portland, Ore., St. Louis, St. Paul, San Francisco, Seattle, Tulsa, Washington. RESIDENT REPRESENTATIVES: Albany, Atlanta, Baltimore, Baton Rouge, Charlotte, Chattanooga, Corpus Christi, Reading, Pa., Richmond, Va., Shreveport. Crouse-Hinds Company of Canada, Ltd., Toronto, Ont.

CONDULETS • FLOODLIGHTS • TRAFFIC SIGNALS • AIRPORT LIGHTING

What's Happening in Washington

Washington D.C.
April 4, 1955

● **Boom Is Getting Its Second Wind—**The Administration's business forecasters read all the economic indicators as bolstering the boom. Last fall there was some doubt, some signs of hesitation. Now things are pointing upward.

Business expenditures on plant and equipment for this year are expected to run slightly ahead of last year. Manufacturers of iron and steel, petroleum, transportation equipment, nonferrous metals and machinery are planning increases. Auto outlays will be lower; so will food, beverage and textiles. Paper and chemical industries will spend about the same.

Store construction will be up—new shopping centers and modernization programs for existing stores largely account for the new record spending in this market. Gas pipeline building is up greatly.

Manufacturers expect their sales to be up—durable goods producers figure this year will be five per cent ahead of last year, makers of nondurables say they'll be four per cent ahead.

Wholesalers and retailers expect their trade to be about six per cent ahead of 1954.

Consumers plan to spend more. The Federal Reserve Board's annual Survey of Consumer Plans To Buy is another big factor behind the bright business outlook.

Almost 50 per cent more people are planning to buy homes than were planning to buy a year ago. And a larger percentage of consumers are planning to buy home repairs and major appliances than were planning to buy a year ago. But they think they'll spend a little less for their appliances this year than last.

● **Officials Keep Sharp Eye on Housing Starts—**The continued rise in home-building has Administration officials on the fence. Some Congressmen and Senators are reflecting worries among lenders that easy credit—largely on small houses financed with government insurance and no down payments—may be actually undermining the long-term stability of the housing market.

Government officials are being urged to consider whether credit shouldn't be tightened a bit. Top housing officials in government, however, are all saying that the pace of housing construction is still satisfactory—in fact, they say they're worrying over signs that portend the boom may weaken somewhat during the last half of the year.

● **Congress To Keep REA Lending High—**For some time, Rural Electrification Administration has been worrying about getting money lent to rural co-ops. Reason is that by law it has to allot its money to the states by a certain formula. Now that many states are virtually 100 per cent electrified, the formula

is preventing states that want REA loans from getting them. For instance, in Colorado, demands of borrowers run to $12.0 million—larger than the allotment allows.

But Congress is going to pass a law removing the restrictions that the formula imposed. Original idea of the formula was to give a break to the least electrified states. The new law will permit REA to lend more money to states where the need is for new generating capacity and transmission to meet the needs of farms already electrified.

● **FCC Taking New Step To Help UHF Stations**—The Federal Communications Commission has moved to help UHF stations in four cities by removing the threat of a VHF station coming in to compete with them.

FCC has agreed to consider to change the single VHF channel in these towns—Madison, Wis., Evansville, Ind., Peoria, Ill., and Hartford, Conn.—to a UHF channel. The towns already have UHF stations on the air—and the idea is to remove from them the threat of a VHF station coming on the air to compete with them. It's a step toward "de-intermixture," which some officials think is the answer to the problem of making a success of UHF.

● **Fair Trade Has Been Getting Its Lumps**—In court, in the market, and now in the report of the Attorney General's National Committee to Study the Anti-trust Laws. The report favors outright repeal of Miller-Tydings and the McGuire Acts, federal cornerstones of Fair Trade.

Which way Congress will go is doubtful. Two important Congressional Democrats, who sharply criticize the report as a whole, split on Fair Trade.

Rep. Emanuel Celler (D.-N.Y.), is for repeal. Celler, Chairman of the House Judiciary Committee, says he hopes repealer bills will quickly be introduced and promises his support for speedy house approval.

Sen. John J. Sparkman (D.-Ala.) has misgivings about repeal. The Chairman of the Senate Small Business Committee feels that Fair Trade Laws give small retailers "reasonable protection," and points out that the Attorney General's committee proposes no substitute for Fair Trade.

It's likely nothing will be done in Congress as a result. Democrats wrote Federal Fair Trade legislation and are leery of switching now on basis of a Republican-sponsored report. With feeling split, it will be hard to get majority support for a turn-around on Fair Trade in this session.

● **Hoover Recommendations Hit Government Lending Programs**—The new Hoover Commission—technically, the Commission on the Organization of the Executive Branch of the Government—handed in a severe criticism of many government lending agencies, including R.E.A., F.H.A., Veterans Housing, Farmers Home Administration, and the like.

The general idea is that these agencies should be required to pay regular rates of interest on money they get from the Treasury, and that the rates of interest they charge borrowers should be sufficient to pay the overhead. Many of the agencies now have their payrolls met through direct appropriations from the Federal Treasury.

Adoption of such changes would put a real crimp in many agencies—but Congress isn't likely to go along with such cutbacks in programs that have a wide public acceptance. In fact, among the dissenters to the report is Attorney-General Brownell—which indicates that the Administration itself isn't backing the Hoover group's findings *in toto*.

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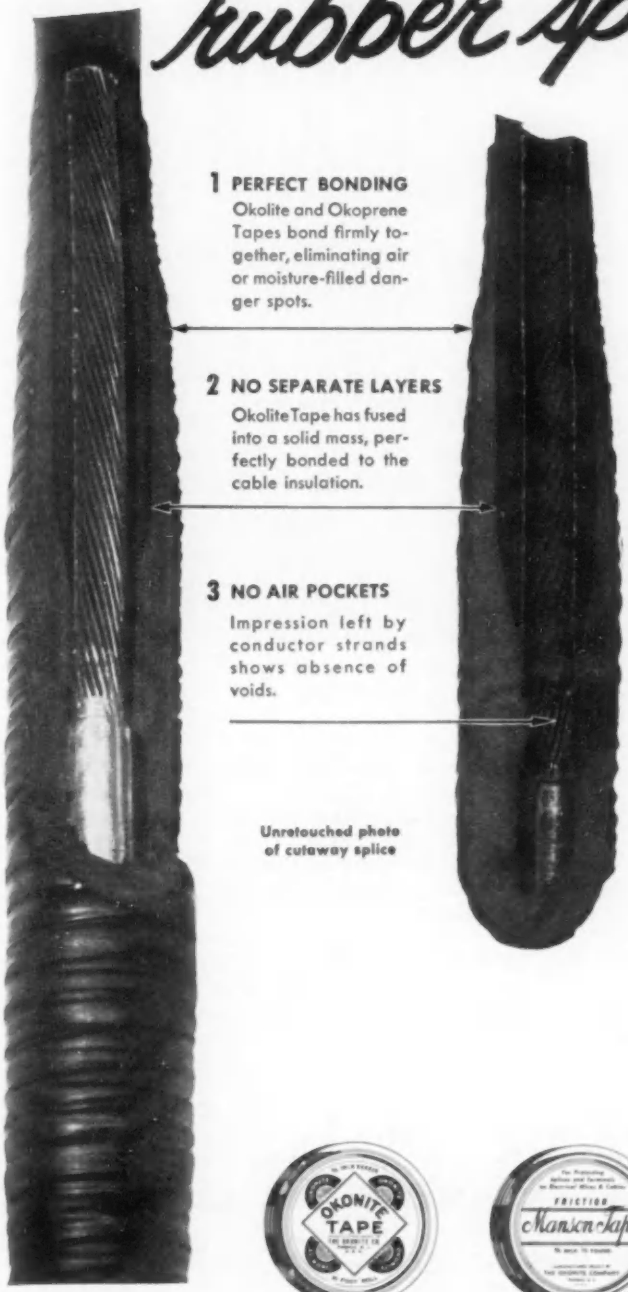
rubber splicing Tapes



Unretouched photo of cutaway splice

All too frequently, cable failures are traced to bad splices. Careful splicing alone is not enough; the use of high-grade splicing materials is essential and economical in the long run. Okonite splicing tapes have proved themselves in the severest test of all—uninterrupted long-time service under all installation conditions.

The cutaway section of a 5kv unshielded cable splice shown here demonstrates perfectly the elements that make up a long-lasting splice. The perfectly bonded, homogeneous wall provided by Okolite and Okoprene Tapes prevents dangerous air pockets that result in a weak insulating joint.

Okolite High Voltage Tape was developed by Okonite engineers for splicing all rubber-insulated cables made with ozone-resisting compounds, particularly for those cables operating over 2000 volts. A single thickness of Okolite Tape has a dielectric strength of more than 17,000 volts. It is ozone and moisture resistant, has a high insulating resistance and excellent aging properties. Okoprene Tape, applied over the Okolite insulating tape, gives the lasting protection of a neoprene sheath to all types of cable splices. Highly resistant to weather, oil, acids and heat, Okoprene Tape gives additional protection through its high dielectric strength of over 7500 volts per single thickness.

Bulletin WH-1089 gives full details on all Okonite splicing tapes, and on the reasons they mean better splices. Write for it today. The Okonite Company, Passaic, N. J.

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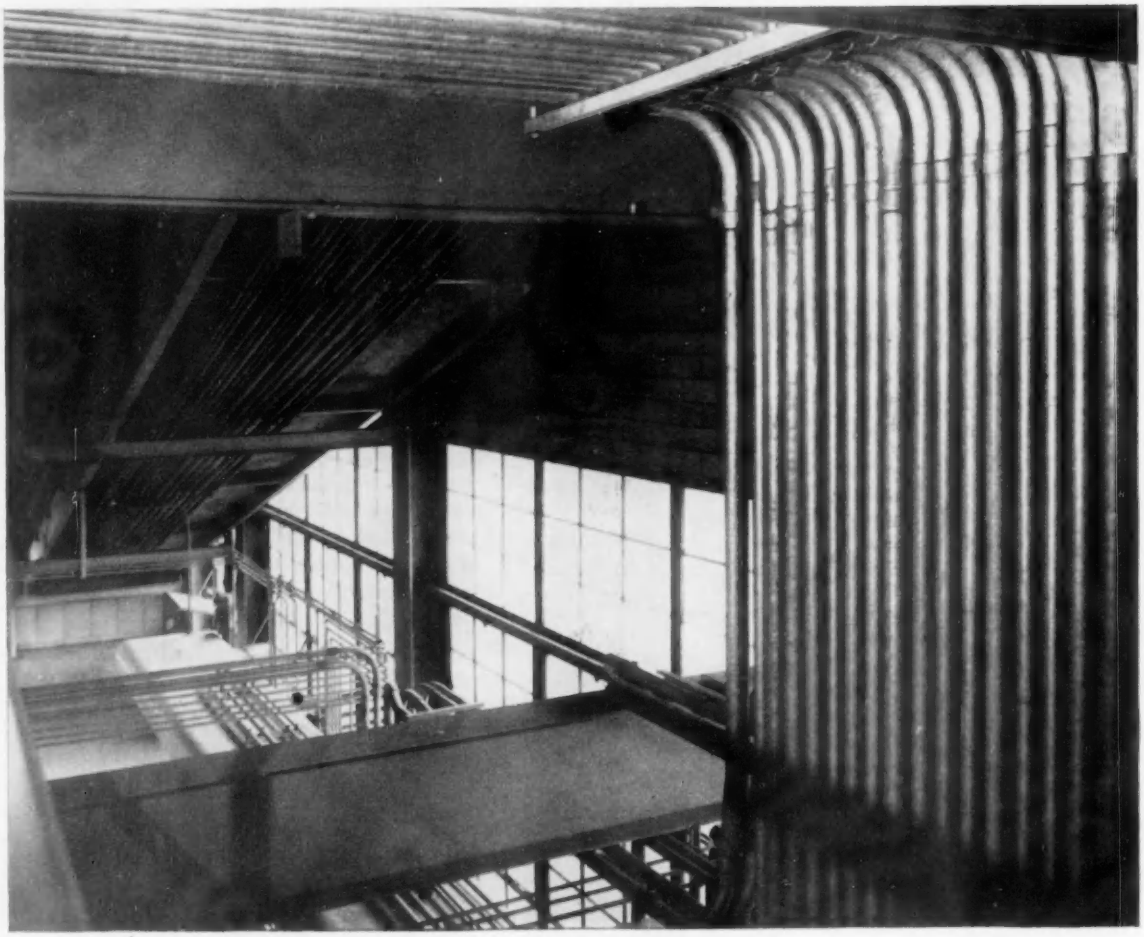

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• They know it's easy to bend. Easy to thread. Easy to handle and install, especially in cramped or small spaces. And its smooth, inside finish speeds up wire-pulling and results in easier, faster installations.

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ELECTRICAL
WHOLESALING
APRIL · 1955

The Electrical Distributor And the Electronics Market

HOW do you fit into the electronics distribution picture? In fact, do you fit at all? The answer depends on what products you're talking about. If you mean industrial electronic equipment—such as power rectifiers, phototube controls, high frequency heating units—the answer is "yes, definitely." The same goes for sound and inter-com systems.

If you're talking about the whole ramification of electronic parts and equipment—including the thousands of types and sizes of deflection yokes, wirewound rheostats, input transformers—the answer is "probably not, but maybe." This is the kind of business being done principally by the so-called radio supply houses.

• **In the Spotlight**—One thing is sure: electrical wholesale distributors are taking a closer look at electronic equipment today. The word is getting around that the automatic factory is close at hand, and that the control systems will be largely "electronic." The electrical distributor, because he (1) already serves industry and (2) already handles some lines of industrial electronic equipment, feels that he is the logical marketing channel for automatic control components and parts when they arrive on the scene.

Preceding this surge of present interest in industrial electronics is a trend that has been accelerating since the end of World War II. That is the entry of electrical wholesalers into the electronic jobbing business on an across-the-board basis. Using their long-established radio tube businesses as a base on which to build, they took on a wide range of electronic products to serve radio "hams," radio and TV repair companies, radio and TV stations, industrial research and development laboratories, small OEM accounts. As volume increased, they organized the selling of these products under an electronics department. A few even set up separate companies for this purpose.

• **On the Ground Floor**—In so doing, these electrical-electronic distributors got in on a boom that is now moving into high gear. Here are its dimensions, as measured by the Radio-Electronics-Television Manufacturers Association: electronic parts jobbing was a $150 million a year industry at the end of the war; it's a $500 million-plus a year industry today; it will be a $1.5 billion a year industry by 1960.

One electrical distributor who foresaw this growth and prepared for it is R. M. (Bob) Johannesen, of Johannesen Electric Co., Greensboro, N. C. He started his electronics department in 1946, and in the past nine years has helped dozens of electrical distributors do the same thing. The following seven pages presents the highlights of Johannesen's electronic distributing operation. (One thing to keep in mind is that his electronics operation is a total one; he's not in the business half-way.)

• **More Coming**—This article is being published as partial delivery on ELECTRICAL WHOLESALING's promise to investigate and report on new growth markets that offer a potential to the electrical wholesale distributor. We're not attaching the recommendation that you ought to jump into them; we're simply presenting case studies for your consideration. As Johannesen cautions on electronics, "There are some areas being well taken care of by specialty electronics distributors where the electrical wholesaler would be just too late to get into the business. But there are many territories that aren't—that deserve consideration and analysis by distributors already serving industrials."

Turn page for complete story of one wholesaler's electronics sales operation ▶

STRESSING a strong point, electrical distributor R. M. Johannesen explains . . .

Why Johannesen Electric Is in the Electronics Business

By George D. Farley

Just ten years ago, Johannesen Electric Co., Greensboro, N. C., ventured into a promising, war-stimulated electronics market. Then, the electronic parts business totaled 7-10 per cent of total sales. Today, it represents 35 per cent of this full-line electrical wholesaling firm's annual sales volume. And the rise gains daily impetus as customers—especially manufacturing plants—become more anxious to gain the advantage of electronic applications. Johannesen got in on the ground floor because . . .

1. We saw a huge potential market for hot, new electronic products . . .

TO begin with, Johannesen Electric had a small electronic parts trade—but it was restricted to radio parts. The great, pressure-born technical advances of WW II shed a new merchandising light on electronic components, vastly widening their field of application. This firm faced a decision: grow with the market—or drop it. After careful consideration, the decision was made.

A separate electronics department was set up and subdivided to accommodate two broad types of customers. It took one kind of selling for dealers and TV service shops; it took another kind for "industrial" accounts—a term to cover manufacturing plants, commercial businesses, institutions, radio and TV stations, etc. TV began to boom fast, but industrial trade showed a big future.

2. Potential electronics customers were already buying from us . . .

IN 1945, Johannesen Electric had thousands of established dealer and "industrial" accounts. Its outside salesmen were daily selling apparatus and supplies, electric and non-electric housewares to these customers, providing the kind of service and know-how they wanted.

It was relatively simple for these men to ascertain what the customers—especially TV and service accounts—wanted in electronic components and how receptive they were to having Johannesen Electric supply them. It was another matter to dig out new business, point out possible electronic applications and build our name as headquarters for needed materials and technical help. Warehousing, receiving and shipping, billing were no problem. They could easily be adapted to electronic parts. But selling, the management discovered, required specialization. At present, two men specialize on dealer and service shops and another man, A. W. Greeson, sells the specialty application of electronics which usually involves supplies and electronic components. His "double-threat" specialization is now paying off.

3. Manufacturers were seeking out reputable local representation . . .

IN the initial post-war development period, many manufacturers of industrial electronic equipment not only sold and installed it, but insisted that replacement tubes and parts be ordered directly from the factories. Detection of defects and control over the new gear was important to them—but costly. Though factory men had to be flown all over the nation, downtime was still a big headache to purchasers of the equipment.

Manufacturers then began to seek out local distributors with good service names, first as sources of supply for replacement tubes and parts; later, as selling outlets for packaged controls and applications. With strong industrial contacts and our full-functioning, service-conscious electronics selling operation, we had a solid case for successfully obtaining top nationally respected lines.

In developing the "industrial" electronic market, specialist Greeson found that a great many industrial purchasing agents were buying electronic components from mail order catalogs—an unusual practice. They got the parts, but that was all. No service from a local organization built on service. No technical help with specific application problems. No one was there in a matter of minutes with parts needed to cut their downtime when emergencies popped up.

This widespread situation helped to underline the need for a local distributor with a going sales operation. And many manufacturers came up with definite policies for working through Johannesen Electric.

4. There was a post-war business boom in our trading area . . .

UNTIL the end of World War II, the economy of the entire Southeastern region was primarily agricultural. In the ten years that Johannesen Electric Co. has stocked and sold electronic components, its trading area has experienced a full-fledged boom plus a definite shift to an industrial economy. The ranks of its big native textile industry have been swelled by the large-scale emigration of New England's fabric milling firms. Federal spending for atomic energy and military bases aided in vitalizing the general business picture.

Diversified heavy industries were quick to come in and take advantage of the region's abundant labor and power supply, natural resources and lower tax rates. Well-established local industries of all kinds expanded to accommodate the area's swelling population. The market was there—it was growing—and Johannesen grew with it. A recent development has reinforced our policy in specializing with industrial electronics. Many manufacturers of components have opened plants in the area because of its continuing growth potential. Some of these plants are customers of Johannesen Electric as well as its suppliers—something new in reciprocity.

BUT—a word of caution! . . .

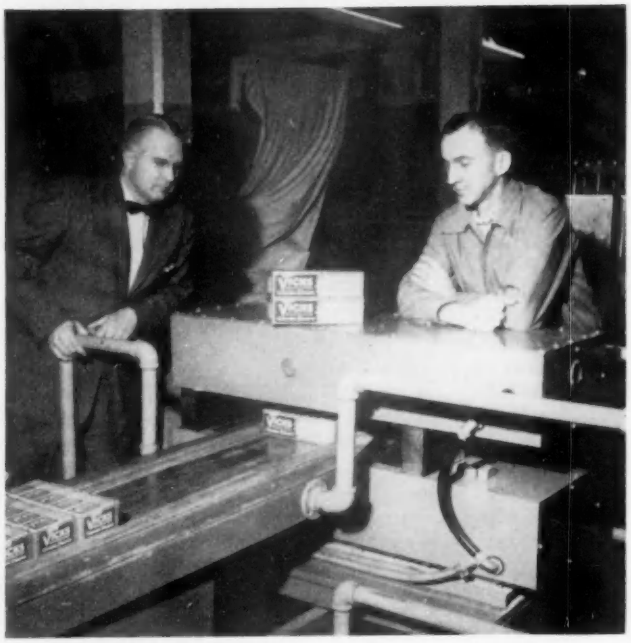
DURING Johannesen Electric Co.'s ten years of selling electronic components, president R. M. Johannesen has often been asked for advice by electrical wholesalers interested in (1) starting an industrial electronic department, or (2) trying to expand their industrial departments to sell electronic components. His cautious advice: "When we started, there wasn't a section of the country not right for expansion. Since then, many regions have been pretty well taken care of by specialty electronics distributors. But many other areas still await development. First, you've got to analyze the market—find out from your existing industrial customers what they use in the way of electronic equipment, where they buy it, are these sources satisfactory? If not, would they be interested in buying from you? Then, find out what the existing distributorships are, see if they are adequate in the way of stocks, financing and sales force." Many electrical wholesalers have gone into the market, guided by this advice. All have been successful. Some have added only industrial electronic tubes and were happy with the volume. But Johannesen feels that when the industry begins to hit its stride, "you can't just operate a department with tubes."

"It's like a grocery store selling only Irish potatoes," he declares, "—you can sell a certain amount of Irish potatoes, but your competitor who sells other things, too, I think is going to get the cream of the business."

Turn page to see what Johannesen sells to industrials ▶

What Johannesen Electric Sells

. . . AND A FEW OF THE ACCOUNTS THEY SELL ▶



MANUFACTURING PLANTS buy many replacement tubes and parts, controls and OEM components. Specialist Greeson (left) and chief electrician W. McBane check operation of electronic counter on cough drop production line at Vick Chemical Co.

SPECIALIZING in industrial electronics, A. W. Greeson (pictured in action, above) spearheads Johannesen Electric Co.'s selling efforts to manufacturing plants, institutions, commercial establishments, TV and radio stations—all of which are regarded as "industrial" accounts.

Everything sold to these "industrials" falls under these broad product divisions:

- Package controls.
- Electronic replacement components for controls and manufacturing processes.
- OEM components.
- Sound systems and recording equipment.
- Inter-communications equipment.

Package controls are just coming into their own, says Greeson. Photoelectric relays and voltage regulators are selling particularly well to the firm's manufacturing customers. The electronic component replacement business accounts for 10 per cent of Johannesen's total industrial electronic trade, and this share is growing as customers add counters, checkers, induction heaters and larger applications to their production lines.

The OEM trade is also picking up, accounting for the same percentage of sales. Several electronic equipment manufacturers are now in the process of moving into North Carolina and Johannesen Electric looks for a bigger OEM market once they begin operations. On large orders, these manufacturers, of course, order from the factory direct. But several of Johannesen's suppliers have rigid protective policies on smaller orders. They have set aside a share of their products as distributor's stock and no one can order from that supply except their established distributors.

Sound systems and recording equipment have been excellent products, sales-wise. It's hard to find a music sound system in Greensboro's dozens of textile and hosiery mills that hasn't been specified and sold by Greeson. The same goes for much of the professional equipment sold to TV and radio stations and recording studios.

As commercial business grows in the Southeast, the market for intercom systems keeps pace. Greeson is hard put to stay on top of the requests he gets from local banks, stores and small offices as they outgrow their inadequate communicating devices. To give you an idea of the personal time limitation problem Greeson encounters, here is a list of his "industrial" accounts:

1) Radio Stations.
2) Television stations.
3) Recording studios.
4) Radio amateurs.
5) Manufacturing plants.
   a. Hosiery mills.
   b. Cabinet manufacturers.
   c. Weaving mills.
   d. Electronic equipment plants (such as Western Electric, I. R. C., Cornell-Dubilier, Hammarlund).
   e. Small electronic sub-assemblers of controls or equipment used by big textile industry.
   f. Furniture manufacturers.
   g. Tobacco processing plants.
   h. Pottery manufacturers.
6) State government (sells thousands of tubes for highway patrol car communications).

To "Industrial" Accounts

TV STATIONS are big customers for electronic tubes and components. Greeson and Doyle Thompson, station engineering supervisor, check guts of camera. Greeson sells all parts, including the $1,200 orthicon picture transmitting tube.

INSTITUTIONS represent a large market for sound systems and recording equipment. Here, Greeson demonstrates tape recorder to medical administrator in psychiatry department, University of N. C. Hospital. He sold 10 for patient interviews.

7) Municipalities (police car communications tubes, parts and sound systems for recreation areas, parks, etc.).
8) Institutional
   a. Hospitals (intercoms, timing devices, signalling systems).
   b. Colleges and Universities (many technical courses use testing equipment, tubes and parts, plus specialized use of tape recorders and intercom systems).
   c. Elementary and high schools (sound, locator, intercoms).
9) Commercial Establishments
   a. Banks.
   b. Department stores.
   c. Restaurants.
   d. Business offices.
   e. Business machine rental companies (buy parts, tubes used in machines).

Without including the radio amateurs, Greeson contacts slightly more than 200 customers. On the following pages, ELECTRICAL WHOLESALING shows you how he seeks out and sells these "industrial" accounts.

What Johannesen Electric's Electronic Catalog Lists

Receiving and television tubes; transmitting, industrial, special tubes; diodes, transistors, dial and panel lamps.

Audio equipment; public address; tuners, amplifiers, intercom systems.

Speakers, microphones, microphone stands, pickups, cartridges.

Recorders and recording equipment, transcription units, pickups, cartridges, phono motors, turntables, record changers, discs, tape.

Cable and microphone connectors, fittings, plugs, sockets, receptacles, terminals, terminal strips.

Testing, measuring, indicating instruments, analyzers, panel meters, test equipment.

Pilot and dial lights, assemblies, rectifiers: dry disc, selenium, instrument, germanium and selenium diodes; transistors, photoelectric cells.

Communication receivers, transmitters, variable capacitors, coils, insulators of all types.

Books, manuals, radio data service.

Switches, jacks, plugs, relays, electronic timers, phototube counters.

Dry batteries, battery eliminators and chargers, power conversion equipment, generators, inverters, vibrators, packs, voltage transformers and controls.

Transformers (all types)—reactors, chokes, coils, inductors.

Fixed capacitors (all types), noise and interference filters, capacitor testers, printed circuits.

Resistors, volume controls, ballast resistors, decades, bridges, noise filters and suppressor rheostats.

Sound system wire and cable.

Tools: soldering irons, pliers, wrenches, screw drivers, nut drivers, punches, cutting tools, neutralizing and alignment tools; chemicals and hardware.

Turn page to see how Johannesen seeks out and sells industrials ▶

How Johannesen Electric Seeks Out

THOUGH developing industrial electronics sales is a comparative innovation for Johannesen Electric, its manager of industrial sales (electronic department) is by no means a novice.

Since his teens, 41-year old A. W. Greeson has been a "ham"—an amateur radio operator. In the tubes and parts selling business for years and a past 2nd vice president of the National Electronic Distributors Association to boot, he brought considerable technical know-how and aptitude to Johannesen Electric when he joined its electronics department back in 1946. Then, he sold anyone interested in electronics. Today, he concentrates only on industrial sales. Greeson has cultivated and sold more than 200 accounts, using the salesman's oldest tool—the "cold turkey call," as he puts it.

Roaming a 75-mile radius around Greensboro, he's hunted many a smokestack and entered many a plant reception room unannounced by phone or mail—but always knowing as much as possible in advance about the prospect. Greeson always asks to see the purchasing agent first, rather than "the boys out back." Invariably, his first act is to trundle out his 12-pound catalog, lay it on the desk and say, "Johannesen Electric Co. has 25,000 electronic items in stock—we surely should be able to serve you." Incidentally, he *never* mentions the competition. His motto: "Don't bother to knock."

When the p.a. shows interest, Greeson opens with a casual comment on the size of the plant and asks how they locate employees. Then he tries to work up interest in a paging or sound system. (He has found that p.a.'s, rather than engineers or electricians, are the best bets for carrying the convincing sound system message to the plant executives.)

• **Gets Inside**—His next step is to ask exactly what the plant produces and, if possible, can he see the inside workings? At this point, the p.a. usually puts him in the hands of the plant engineer, chief electrician or maintenance supervisor for a tour. "And then," declares Greeson, "I really start selling. At every step, I take notes on where they use controls, relays, switches, contacts, wire and cable, transformers, rectifiers — the works, the complete product picture."

Then he tries to ascertain what they need, what their production and control problems are, how they might be solved electronically, the types and numbers of all tubes used. If the tour's guide is agreeable, Greeson takes a tentative inventory of their tubes and components and helps to straighten out the stock system if it's inefficient. All this information goes into his little black book. The tour helps him to help the customer, he says. "Working with this inside knowledge, I can generally help solve their immediate problems and keep my eyes open for likely new products and techniques that will fit their particular needs."

• **Designs Gear, Too**—With little variation, Greeson's basic method—tailoring his know-how and service to their needs, identifying himself with their own operation—meets with equal success with all his accounts. Calling on a downtown bank, a local TV station or a hospital, the approach is the same: Find out what they use, what they want to accomplish—then help them do it electronically. Often there is no known electronic solution, no standard piece of equipment for a specific application. Greeson then sits down and designs the application and Johannesen Electric sub-contracts the job to a specialty contractor, pays for it and then charges the customer accordingly. But the important service feature is that the customer gets what he wants when he wants it.

Does it pay? Here's what Greeson says: "If you're the guy who goes out of his way to *create* what your customer needs, and he knows you're selling 25,000 electronic items, do you think he's going to go out of his way to order, say, tubes from someone else? Not on your life! The service we try to provide, no matter how small, is like money in the bank. The goodwill just keeps building."

An angle akin to this design aid is Greeson's close work with architects on sound systems or inter-com installations. He draws up complete specifications for the architects, pointing out what they have to leave in the way of space for conduit, switches and service entrances, how they can have custom-made speaker cabinets built by Johannesen's sub-contractors and placed for maximum acoustical performance to blend with the architecture. This service has been appreciated to the point where several architects simply refer bid-winning general contractors to Greeson for the itemized job specifications on sound systems.

• **Follow-through Vital** — The industrial specialist's selling doesn't end once the account is established, either. Follow-up is all important to maintaining his usually solid position. Trouble-shooting is also a 24-hour-a-day proposition. It's given him entree to many tough accounts. For example, one manufacturing plant had some hard-to-get control components burn out. He'd never been able to sell them before. They called him at 5:25 in the afternoon. Greeson flew his private plane to Charlotte for the needed parts, returned and "stayed on the end of the engineer's pencil" until the production line was ready to roll at 9:45 that night. From then on, he was able to develop sales. Now he sells most of the tubes, components and electrical supplies used by the plant.

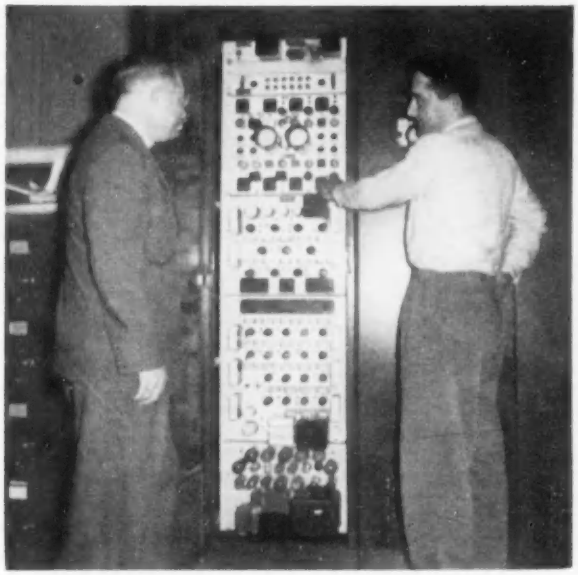
This sort of emergency crops up almost daily and Greeson is quick to capitalize. That's another reason why he has no regular scheduled calls except one every day to the local TV station, WFMY-TV. In one day he may make one call or half-a-dozen, but he's always selling applications, electronic benefits, personal know-how and Johannesen Electric's reputation as a service-conscious supplier.

• **Feeling Squeeze**—Greeson has been successful in adjusting for the pinch of new business on his selling time. But as he continues to develop the fast-expanding industrial electronics market, he may have to narrow his specialization still further, says president R. M. Johannesen, perhaps devoting most of his time to cultivating new accounts, getting his company's name established as headquarters for electronic components and apparatus and supplies.

One thing is certain. No matter how big the industrial market gets, Johannesen Electric and Greeson will be on top of it.

and Sells "Industrial" Accounts

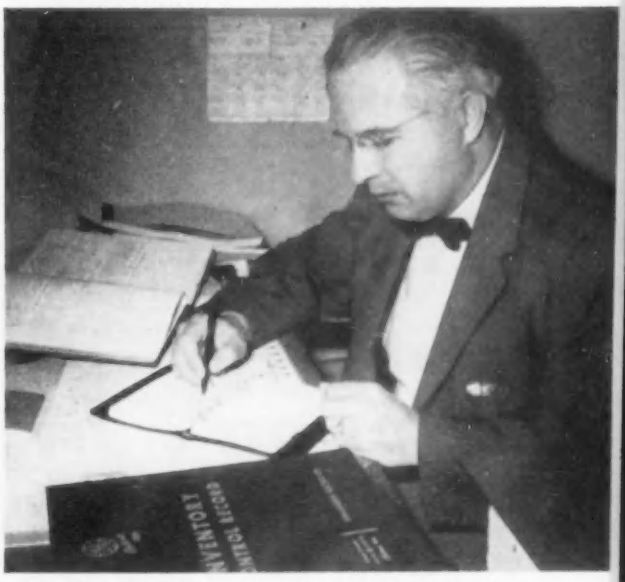
. . . IT'S ALL DONE BY ONE MAN



FIRST STEP in actual selling to local station WFMY-TV is "first class" tour of the inside with Doyle Thompson, spv'r. of engineering. At the horizontal-vertical synchronization panel rack, Greeson notes types, numbers of tubes used.

EXPENSIVE SAMPLE, a $1,850 transmitting tube, is examined by Thompson and chief station engineer Bill Neill as Greeson gingerly points out performance features, stresses importance of standby inventory to maintain 3,000-tube "rig."

TAKING INVENTORY (which he has set up), Greeson discovers that it's short 467 tubes—ranging in price from less than $1 to more than $2,000 apiece. He takes inventory monthly, calls on station daily as only regular scheduled call.



LITTLE BLACK BOOK receives additional detailed customer information as Greeson makes extensive notes about the TV station's needs. This and inventory data keep him alert for helpful new products, techniques customers can use.

Turn page for how Johannesen sells the dealer market ▶

. . . And There's the Dealer Market

ARRANGING CALLS on his schedule, electronic dealer salesman Carlos Hill is surrounded by tools: Radio's Master catalog, his own "hot products" catalog, pricing book and note book. Hill must make at least 10 calls a day on dealers.

CREDIT REPORTING is vitally important to selling dealers successfully. Credit Manager Kermit Stubbins has little information to go on, depends on Hill and salesman Dayton Ward to obtain supplementary business data on customers.

BIG COUNTER BUSINESS requires separate section, three salesmen. Dealers, contractors and "hams" from seven small cities around Greensboro keep (l. to r.) Dick Murphy, L. A. Hartsook (Ass't. Mgr.) and Herb Sonntag busy all day.

. . . SERVED BY THE SAME DEPARTMENT ▶

INSIDE HUB of outside industrial and dealer salesmen's efforts is the Electronics Department. Manager Louis Henley checks purchase and cost record on item with control clerk Hilda Leinbach. Department uses 5 volumes for 25,000 items; supplies department uses only 1½ books for its inventory.

No question about it...

THE amplex FRANCHISE IS A VALUABLE PROPERTY

in terms of

Higher Profit Margin!

Better Discounts!

A Really Complete Line!

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AN EXAMPLE

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Plant: First of four lighting sales at Ganz Brothers. This shop installation led to sales of electric ceiling for drafting room, outside flood-lights and illumination for new company sign.

One Lighting Sale

Combining service with quality selling, Nassor Electrical Supply hits industrial lighting hard. Emphasis is on regular supplies customers — but the firm's lighting reputation has attracted several new ones.

"IT'S A WHOLESALER'S function to recommend as well as supply. We see service as helping our customers solve problems as well as use our lines and better our name."

The precept, voiced by George Nassor, sales manager of Nassor Electrical Supply Co., has been translated into practice in the industrial lighting field by this Hackensack, N. J., firm. Thorough-going service has increased Nassor's lighting volume 10 per cent over each of the past four years.

"We concentrate on giving our regular supplies customers every possible bit of lighting help," Nassor continues, "and we've found that they come back for more. In fact, one lighting sale leads almost directly to the next."

• **Real Service**—There's ample proof of Nassor's ability to cope with customers' problems. Plant installations often have led to relighting in the office or drafting room. Word has spread about these sales, bringing in other customers with their lighting problems. And although emphasis has been on servicing regular accounts, new ones have been added on the strength of the firm's lighting reputation.

Service at Nassor means several things. At the crux is experience in lighting layout: two salesmen who can engineer as well as sell. One is George Nassor himself, and the other is Ted Bohlen. Combined with this experience is contact with regular customers, day in and day out, and knowledge of their special problems and needs.

Service also means suggesting applications, accommodating layouts to specific needs, and even setting up lighting "test areas." It means strong emphasis on quality—good equipment and ease of maintenance rather than selling price—which results in long-run customer satisfaction.

• **Big Market**—Many plants are concentrated within a three-mile radius of Nassor's house in northern New Jersey. Here are paper, aircraft, textile and machine tool plants, among many others. There are numerous light in-

◀ To Regular Customers . . . Or New Accounts

Office: First lighting sale at Staedtler Pencil Co. Nassor stresses modern offices as integral part of industrial plants.

Drafting Room: Lighting for Settee Engineering's new home was sold on layout done from architect's sketches.

Sells the Next

By Durward Humes

dustrials as well, ranging from pencil makers to construction firms.

It is to this market—close by for handy coverage and delivery—that Nassor is selling more lighting every year. In their calls, Nassor's two outside salesmen are constantly looking for new lighting applications. And with each sale, the groundwork is laid for the next.

One large paper manufacturer is a typical customer. A vital operation in this plant: inspecting newly-coated stock after it leaves the cutting machines. Nearly all the girl inspectors wore glasses, and the poor lighting was their pet peeve. Rejections and complaints from customers ran high. Three years ago, the management asked Nassor what should be done.

• **Extra Sales**—Nassor found that this inspection area had a light meter reading of less than 30 ft. c. With the sheets of paper traveling at high speed, the inspectors were making quick decisions in the near-dark.

Nassor then made and submitted a new lighting layout to the concern. Based simply on the need for more illumination, it was accepted and installed. This same area now has a meter reading of 100 ft. c. at working level; complaints, both from the girls and the customers, have been virtually eliminated.

Management's satisfaction with this job led to others at the plant. Still another section had glare problems, with meter readings varying from 20 to 35 ft. c. The old fixtures were removed, and a fluorescent "test area" —which is proving satisfactory—was set up on the basis of Nassor layouts. In the cards is the complete relighting of similar areas.

Using a new white lamp, Nassor ended another problem at this plant. Glare had bothered truck drivers using a long tunnel between two buildings. Nassor re-engineered the whole job, recommending a new fixture with non-glare white lamps and angle shades to throw light on walls rather than on the roadway itself. To increase the reflected light, the walls were painted white. Both the truckers and management liked the new lamp installation.

• **Accommodation**—At Ganz Brothers, a machine tool design firm, the lighting in the main shop varied from poor to fair. Asked for recommendations, Nassor laid out the shop using 4-light, 40-watt industrial tandem fixtures.

Ganz approved the layout but wanted to have the units delivered and installed one area at a time. Nassor agreed, and began delivery in batches of 20 8-foot fixtures. In total, over 150 units were installed. "A 500 per cent improvement," commented the men in the shop.

The front office then began discussing the firm's lighting needs in the drafting room. Out went the standard stem-mounted units, and in went an electric ceiling. Nassor is especially proud of this job, for it was easy to estimate (based on square footage required) and it will save Ganz the expense of a hung ceiling.

Still to come at Ganz is a floodlight installation at the front and along the sides of the building, and lamps illuminating a company sign.

• **Desk Lamps Out**—No factory

'Keeping-up-with-the-Joneses sells a lot of industrials. Lighting involves prestige and is one of the first items modernized when wiring is discussed.'

LIGHTING SALESMEN George Nassor (left) and Ted Bohlen go over a price list on layout and estimate for lighting job. Lighting layout is crux of the firm's many extra services that clinch industrial sales.

operates without its office—and this is a sizable portion of Nassor's industrial lighting market. At Air Associates, an aircraft instrument firm, the overhead lighting was so poor that every desk had a supplementary lamp.

Nassor's layout at Air Associates managed to meet the many problems inherent in relighting existing offices. When proposals for a dropped ceiling and recessed units sounded too costly to the firm, Nassor recommended surface installation. These units were mounted so as to provide adequate illumination as well as avoid changes in the sprinkler system or in the desk arrangement. Earlier layouts had failed, but Nassor's proposal—placing the fixtures perpendicular to the room's long wall—solved these problems. Today, all desk lamps are gone.

Meeting cost factors, and at the same time installing quality lighting, is the story of the office installation at Staedtler Pencil Co. In each of two ceiling areas, two fluorescent units were installed rather than the three proposed earlier. This meets minimum needs, and exact spacing is left in each case for installing the third fixture if management finds that more illumination is needed.

• **New Building** — Nassor's layouts for the new offices of Settee Engineering, building contractors, illustrate in a nutshell the differing requirements for various offices. Using the architect's rough sketches, Nassor did the final lighting layout. The drafting room was set for 50 ft. c. maintained, as was the office manager's room (since he also works with blueprints). The outer office, the president's office and the conference room were designed for 30 ft. c. maintained illumination.

While concentrating on industrials, Nassor has not neglected its other customers. The institutional market, for example. Dissatisfied with their old low-hanging, low-output fixtures, the Knights of Columbus in Hackensack called on Nassor to come up with something better for their main auditorium.

Special needs there received special treatment. Formal dinners are usually brightly illuminated; stage presentations and dances, however, need only "house lighting." Solution: a rheostat providing from zero to 100 per cent brightness. Twelve high-bay units replaced the old fixtures; "Now those old chain-hanging units are gone" one member commented.

• **Display Combination** — Nassor feels that contractors' lighting jobs are too often lacking from an illumination-and-looks standpoint. Moving to correct this situation, Nassor encouraged one contractor — Bosshard Brothers—to install a combination lighting showroom-and-office. It is similar to Nassor's own office, where a variety of fixtures both illuminate and serve as displays.

One of the three rooms in the Bosshard office has surface units, while the second has recessed troffers and the third has an electric ceiling. Both Nassor and the contractor stress the features of electric ceilings: reduced carpentry and painting costs (an important factor when ceilings must be lowered anyway), and reduced maintenance.

Nassor works closely with local utility lighting specialists. This cooperation allows the two organizations to double-check layouts; Nassor also draws on the specialists' engineering experience, and gets leads for future lighting sales.

Nassor thinks its increasing industrial lighting sales can be classified three ways:

• Service: sold mainly because of layouts and extra service

• Quality: would have been sold anyway, but on inferior quality basis.

• Creative: new jobs, sold on the firm's reputation for quality and service.

• **Industrial Interest** — For Nassor, lighting is a hot field. Part of it is the opportunity for extra customer service. Part is emphasis on quality. And part, of course, reflects industry's growing interest in better illumination —an awareness of the human and productive advantages of good lighting.

One plant engineer commented that where, 10 years ago, he had one 100 watt incandescent lamp, he now has 160-watts fluorescent—and is planning to install 300-watts. The machinery in this plant, as in hundreds of others, has remained the same. But because of higher labor costs and the demand for more goods, the plant has to squeeze more and better production from these machines. One result: lighting is a critical industrial factor, as many companies now realize.

"Look at it another way," says N. G. Nassor, Sr., president of the Hackensack firm. "Keeping up with the Joneses, pure and simple, sells a lot of industrials. Lighting involves prestige, and is one of the first items modernized when adequate wiring is discussed."

see them...

hear them...

try them!

THE FABULOUS NEW
EDWARDS DOOR CHIMES

COMING
SOON...

Utility engineers are always on the look for new developments in supplies and equipment. If they see that you're seriously concerned with supplying that information and in solving their problems then . . . ▶

By Thomas F. Preston

A UTILITY purchasing agent wrote some years ago that 90 per cent of the orders he places with electrical distributors for materials and supplies for the operating, construction and maintenance end of the business are orders for which he knows exactly what he wants. Less than 10 per cent of the orders, he said, are the result of salesmen's efforts and it is doubtful whether this figure could materially increase the volume of their utility business "because the requirements are fixed."

Yet, he admitted, in that very small 10 per cent there still lies a challenge to a great many progressive distributors and distributor salesmen.

• **The Swing to More Business**—The "challenge" was taken up. It was a challenge to become so well-grounded in material lines and product application that, although they were told they could not create an increase to the total business, they could swing over into wholesale channels more of the supplies business that is available.

One of those who accepted the challenge of the electric utility market is John Aertker, now sales manager of Lighting Fixture & Electric Supply Co., New Orleans, La. Not content with this maximum-10-per-cent-because-of-salesman pronouncement, Aertker, from the very beginning, was "out after all the business he could get." (He's at left in photo above.)

In going after it, there were two factors of "worthwhileness" Aertker knew would be expected of him as a distributor salesman backed up by his company: One was availability of stock, the second was ability to furnish special services.

• **Supply And Demand** — The amount of business carried on between distributor and utility is directly proportional to the amount and selection of materials in the distributor's warehouse. "No extensive stock, no possible chance for a distributor to strike out into this market," says Aertker.

He explains it this way. The stores department of any progressive utility stocks as much material needed on the line as is necessary for the normal operation of the construction and maintenance department. The manager of this department tries to keep down stocks in his store so as to reduce unnecessary insurance, inventory and personnel costs. He will depend on the local electrical distributor to furnish him, out of stock and at a minute's notice, sufficient quantities of materials needed to meet his requirements. For this service the utility is willing to pay just compensation.

• **Saving them Costs**—Conversely, this situation does not hold true with goods shipped direct from manufacturer. In that case, the wholesaler is not a wholesaler at all, but a broker. One of the strongest arguments the wholesaler and his salesman has in asking for utility business is that he can warehouse the goods and save the utility that cost. But after getting the utility business, Aertker says, if it is discovered that a great many supplies items are out of stock and must be back-ordered, or ordered sent direct from the factory, this strong argument falls by the wayside.

As to the ability of the salesman to provide special services to the utility, this means being able to apply his stocked items to field use. In the old days, when direct buying from the manufacturer was more common, these manufacturers maintained representatives in the territory for almost immediate call from customers. Purchasing agents and utility engineers quite frequently called upon these men to furnish them with complete information on the technical as well as the practical applications of products.

Now, since the distributor has established himself more strongly and has taken over the manufacturer's responsibilities, it is up to him to see to it that these services are carried out much in the same manner as before—and sometimes better. Specialization is an answer, Aertker declares, but it's not *the* answer.

• **Not all Specialists**—Lighting Fixture & Electric Supply has six outside and two inside salesmen covering the needs of the utility market in Louisiana, Mississippi and southern Alabama. Most of these salesmen handle the full line of electrical supplies and are not specialists in the true sense. But, from years of experience in selling to utilities, the company has built up a reputation of solving problems no matter what the cost.

Someone once remarked that less than 10 per cent of the volume sold to utilities is the direct result of a distributor salesman's efforts and no amount of super-salesmanship could increase this figure. Yet here's one salesman who doesn't buy this notion and, by his own actions, he's "out after all the business he can get"

You Can Sell More to Utilities

This reputation is built around the services of a veteran sales crew in conjunction with the manufacturers' men—plus the added impact of specialist electrical engineers in the Lighting Fixture & Electric Supply organization who act as trouble shooters for the other salesmen whenever emergency technical service is needed. This arrangement, Aertker declares, can handle the bulk of the problem situations as they occur.

On the actual selling end, Aertker says that approaching the utility market is not so different from selling to industrials. The distributor salesman calling on industrial accounts oftentimes gets to the heart of the electrical end of the factory by spending as much selling time as possible with the plant engineer, the chief electrician or the electrical maintenance crew (without bypassing the purchasing agent)—the men whose advice on purchasing weighs heavily on what electrical products are specified and bought, and from whom.

The same procedure holds true with utilities. It is the engineering department that drafts plans for the future, the operations department that puts these plans into effect, the line supervisors and crew that expedite and actually work on these plans. Each of these departments is contacted in time by Aertker when calling on the utility account because each—along with the purchasing department—can be a decisive factor in getting electrical products carried by Lighting Fixture specified.

• **List of Standards**—From years of serving the electric utility field as sales representative for Lighting Fixture & Supply, Aertker has come up with some "standards" to use in approaching this market.

To be successful, he says, it takes:

• **Complete stocks** of distribution, transformer and metering equipment. It means having a working knowledge of products from the transformer to the service entrance.

• **An ability to talk the language** of the engineer as well as the purchasing agent.

• **An understanding of the personalities** involved in the ultimate sale of electrical products to utilities—operational personnel, engineering or planning personnel, line construction personnel and purchasing department personnel—in the case of larger utilities. In the case of the smaller municipalities it takes an understanding of the personalities of two major groups—the engineering staff (including the line crew) and the purchasing staff—made up in part by management. Whether selling to large utilities or small, purchasing is pretty much standardized. In each office setup there is a standards group that rules on all materials as to their fitness to be used in the operations of the utility. This standards group is made up of engineers or technically trained personnel who pass on all information and suggestions sent through channels.

• **A certain decorum** on the part of the distributor salesman to see that each of these aforementioned groups are not slighted. This means an almost permanent attention to one of the basic of all selling facts—"Don't let on you know too much about a customer's business." Even though you have been told by one party to expect an order coming through from engineering or planning, don't antagonize purchasing by letting them know you are aware of the order and expect the business. Instead, tell purchasing you are prepared to fill any request they may desire in the future and that "you stand ready to be of service 'should' an order like that appear from engineering or planning."

Too, utilities and municipalities work under the repeating requisition form of buying. It is the business of the distributor salesman to try to get his merchandise on the approval list of lines that a utility buys. Here is where the salesman's relationship with this standards group that was spoken of before comes into play. If he can convince this group of the quality of his products to the extent that they will be approved, then he will be assured of at least part of the business in many product categories.

• **Selling ingenuity** on the part of the distributor salesman to plant the sales seed where it counts most, without by-passing or stepping on the toes of anyone in the process. The real selling job in this respect starts with the planning and operating engineers or line foremen—even the line crew. The planning and operating engineers initiate and pass on orders

coming to and from purchasing. They have their fingers on the pulse of the basic electrical needs for the company and for its successful operation.

If a salesman is genuinely interested in intelligently servicing his utility accounts and seeing to it that he is seriously concerned with solving the problems encountered by these engineers, he will, in the long run, be building a better business relationship that can be broken only by his or his company's default on promises. In a utility, it is sincerity, backed by fulfillment of regular service more than anything else—even price—that counts heavily toward a salesman's success in this field.

• **An understanding of line crew personnel.** The line crew is the group that must work with the products you sell to the company. If they are not satisfied with the quality or ease of installation or length of serviceability of your products, utility management will be made aware of this situation—through channels—and be prone to correct the cause. Likewise, these same channels can funnel product information helpful to the salesman's cause by reporting on the need for your products on the line as expressed by linemen and line supervisors. Getting this kind of product information to bottom rung so that it can be felt all the way to top management rung is a device used by successful salesmen whose strong determination it is to have their products "wanted" by the workmen to the point that they get specified. And once the salesman's products get on the purchasing cards of the utility (tieing in again what was already discussed) there is a good chance for it to stay on for quite some time.

• **A concerted effort** on the part of the distributor salesman and factory representative to do a really effective job of selling to the utility. The distributor salesman should furnish the bird-dogging activity, the flushing out of sales potential, the personal contact, the initiation of sales, the follow through on orders, the source of immediate supply, the strict attention to service, the prompt answering of emergency requests, the friendliness of regular calls, the answers to some of the immediate problems inherent in supplying a variety of electrical products, and the devotion to details. It is up to the factory man to be relied upon to furnish the technical and the engineering assistance to problems that may crop up often. If either one is lax in his selling or engineering responsibilities, the entire selling structure built up over the years could collapse overnight. To be successful, this arrangement needs the understanding and the help and the complementing of all parties concerned.

• **Some extra-curricular selling ability** on the part of the distributor salesman to cement better relations with utility accounts. By keeping his eyes and ears open on all trips to utilities, a salesman can be able to pick up ideas that can be of help to many of his customers. He can be an interchange of information for these customers. If it has been found that a certain operation has been successful at one account and not at another, the salesman can advise the account of the success of the other, even to the point of telling him how he can find the answers to specific problems. A case in point is Aertker's becoming an expert in the eyes of his customers on the use of aluminum wire. Through talking with engineers on the possibility of using aluminum wire on the lines of this one utility, Aertker became interested in the subject and did some extensive research into aluminum. As a result, Aertker was able to interest one customer in using aluminum wire throughout. Other utilities, hearing about this move, asked him to help them out in their aluminum wire problems. In this way, he was able to meet more of the top management people who were doing the purchasing and the planning.

• Cost vs "Factors"—This list of "standards" that Aertker uses in reaching and holding the electric utility market in his area is a direct answer to the question of his industry's place in the distribution of electrical equipment to this field While the utility buyer is still not in favor of buying 100 per cent through the distributor, the overwhelming thing that the industry (and the utility, as a part of it) is interested in these days is the ultimate cost of distribution. If in connection with any line, the wholesaler cannot show definite reasons why the cost he represents is over-balanced by other factors, then it would be uneconomical from his viewpoint—as well as the utility's—that he stay in the picture.

Aertker, and progressive distributor salesmen like him, are making sure that this market realizes that the cost of distribution to the utility is overbalanced by factors so strong that their staying out of the picture would create an impossible situation.

A Utility Man Looks at Salesmen

Here's what one utility p.a. wants in the way of accomplishment from distributor salesmen calling on his company:

• Keep us informed at all times of what you carry in stock. If we know there is a local stock of something we need greatly on short notice, we're going to investigate that stock before we send an inquiry to someone 200 miles away.

• Keep us informed of new developments in the class of supplies and equipment we are buying. Often you know of new things before we do. This holds true also with construction practices.

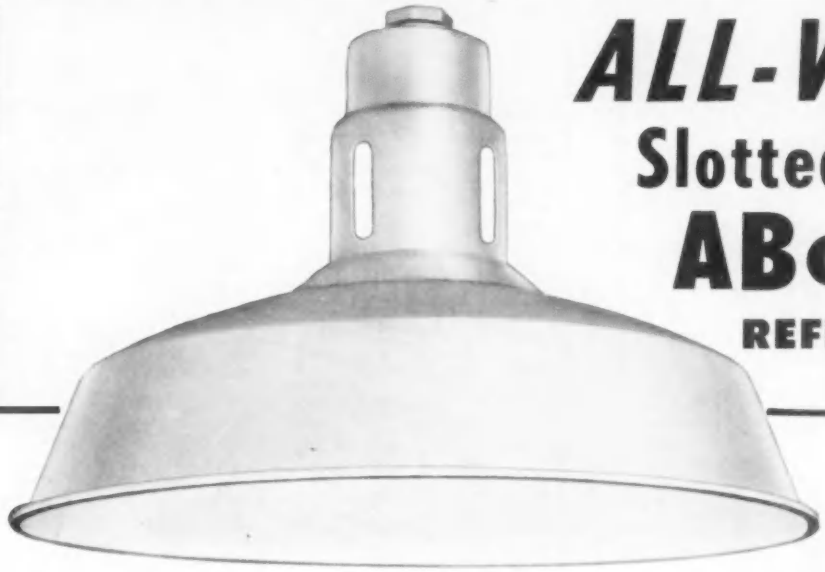
• Tell us at once about any change in methods of delivery or buying terms, including price.

• Be familiar with the application of your products to our needs. This means making a real study of our requirements and the practical applications of the materials and devices you are trying to sell us.

• We hope you have the authority to negotiate contracts for commitments without referring back to your house.

• Give us a salesman who will help us always get what is coming to us in the way of service which is due us, in consideration of the business we're placing with him.

• Give us a salesman who fully realizes that he is not through when he gets the order, but only through when the materials have been delivered, are in satisfactory operation, and when satisfaction has been given in regard to any adjustments that should rightly be made in our interests.



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The original ABOLITE SLOTTED-NECK design permits lamp heat to escape through ventilator slots, which results in a cooler, cleaner fixture. Tests prove that lamps last longer, cleaning costs are practically eliminated, and the original intensity of reflection is maintained almost indefinitely.

ALL-WHITE ABOLITE reflectors utilize special Titanium white porcelain enamel on the outside as well as the inside. They flood more brilliant light, are impervious to weathering and chemical attack, and are smooth as glass which resists dust and dirt accumulation.

SLOTTED-NECK ALL-WHITE ABOLITE reflectors give highest illumination at lowest cost and at the same time provide a modern efficient appearance.

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THE JONES METAL PRODUCTS CO.
WEST LAFAYETTE, OHIO

The appliance dealer with no intent to mis-use funds, is put in a position that requires expert management when he orders housewares from distributors on six-month dating . . .

At delivery, his shelves are filled with unpaid-for merchandise or, if he wants to play housewares close to the vest, he can order only as needed to keep a back-up stock handy . . .

Howard J. Emerson asks about:

Dating Plans for Housewares:

The season now starting may see the selling of small appliances on extended dating terms become a serious problem for many distributors

This is the consensus of many combination as well as specialty distributors as they face a season that promises to be one of the biggest volume years ever for electric housewares.

Unfortunately, it is a situation that may get worse before anyone in the industry does something about it. Combination distributors have more serious problems in the supplies end, specialty wholesalers have big-volume headaches with majors and TV, and with hardware and jewelry jobbers the housewares get secondary attention.

Yet, while distributor management attends to these more important problems, the men responsible for electric housewares sales, and the wholesalers' credit managers, find the industry being drawn into a situation that is economically unsound, at odds with any sound approach to wholesale and retail merchandising or intelligent credit extension.

The basic cause of their troubles is over-extension of the dating period

The long established practice of granting 120 days credit plus cash discount to a retailer on his bulk purchases of an electric housewares stock for his busy fall season is fast breaking down. Only a few scattered distributors are able to hold their traffic appliance volume with only this original plan to offer. Today, six-months dating is becoming the rule instead of the exception in many market areas.

The purpose of dating programs has changed. Originally they were a normal extension to the retailer of terms given the distributor by manufacturers who needed pre-season orders to guide production, warehousing and shipment. Today the dating plans being peddled in the market places bear little if any resemblance to the terms of the distributor-manufacturer relationship. Dating is becoming a distributor-sponsored program designed as a competitive selling tool.

With these changes, distributors have lost control of a situation involving millions of dollars.

The return from sales of these housewares during the shallow days of July through middle September, without the need to pay for stock, can give him a false sense of success . . .

because too few dealers make specific provision for setting aside the net cost of dated housewares sold to prepare their concerns for the big bills in January. Then the woes come.

A Good Thing Going Wrong?

Many distributors admit that control of dating programs is in the hands of the retailers and guided by the marginal distributors who have nothing to sell but terms

As a result, many distributors with otherwise sound operating policies are fighting for the electric housewares business not only by meeting their competitors' offer of six months dating, but by:

• **Allowing open-end orders.** Taking minimum orders—as low as 12 pieces in late spring on six month terms when such orders wouldn't last the retailer through more than August—are being done to get "in." After that the retailer orders what he needs, from regular price sheets, all to be added to the bill he will get the coming January.

• **Extending credit limits.** This is being forced on many distributors because of the length of the dating period. Many dealers have reached the limit of credit allowed them on dating by late November (because their July, August and September business is included). With the certainty of six weeks of heavy volume and full profit at the doorstep, many favored accounts are getting more merchandise from the distributor even if it puts the dealer over the originally established credit limit. The distributor knows that the dealer can get the same brand merchandise from another source.

• **Giving extra discounts.** It's beginning to show in some of the large market areas. In 1954 many retailers were being offered an extra 5 per cent—occasionally as high as 8—for giving one wholesaler all his electric housewares business during the last six months of the year. Distributors attribute this arrival of price cutting to the marginal distributors' attempt to compensate for having other distributors meet their offers of long terms.

Obviously that one statement is open to question because, as in the supplies end, price-cutting has never been the prerogative of the small distributor.

• **Asking for guaranteed sales.** This is the next step expected in the breakdown of electric housewares merchandising that began with the extending of dating programs beyond 120 days. As yet this practice has shown in

only a few market areas. Fortunately, the marginal distributor can't afford to take back from the dealer the small appliances which the dealer has in overstock after the dating period is over. And the larger distributors won't. But this last step, which would turn traffic appliance distribution into a "consignment without title" business, lies in the shadows as a threat of bigger proportions than the specter of price cutting.

Extending electric housewares dating to six months immediately upsets a distributor's turn-over ratio

This dating setup puts an unwarranted drain on a distributor's capital, stretches his credit risks—without serving any one of the three basic reasons for the original 3-month dating plan: 1. To provide early season information to manufacturers; 2. To cut the distributor's sales and handling costs on seasonal merchandise; 3. To help the retailer have full stocks for the Christmas season.

• **Financial Responsibilities** — For three of the six months, the distributors must finance the dating program. Manufacturers have stuck close to the original 3-month plan, and some have dropped dating altogether. Extending dating into the summer months sews up the capital of combination distributors when they are in the middle of the construction season.

It ties up capital of the specialty wholesaler when he must be ordering heavy stocks of TV and major appliances for the fall. Furthermore, the distributors' dollar sitting on dealers' shelves (or already in their cash registers) not only isn't making money, it's losing money—the comptrollers say that after one month the uncollected dollar is worth 90 cents, after four months it is worth only 60 cents.

• **It Doesn't Increase Sales**—Dating programs were never meant to increase sales, and the extension of the terms to six months has done nothing to effect volume other than to keep the distributor competitive. Originally, the dating programs were designed to lower the cost of making sales, and to cut the costs of handling highly seasonal merchandise.

Extending of dating beyond three months is increasing the cost of making sales and increasing equally the costs of handling the goods

Allowing retailers to start dating in late spring and early summer is not cutting down on the mad rush to get merchandise during the frantic selling days in late November and December. Distributors are finding that once the dealers have established their dating plan with a minimum order, they no longer feel it necessary to place an order for their Christmas season needs at one time.

Dealers can and do play housewares close to their vests, ordering only as needed to keep a back-up stock. If the dealer has dating from more than one distributor, he may give the weekly orders to the first salesman who asks for them.

Therefore the distributor's traffic appliance salesmen must hustle during the fall to hold on to their regular share of the territory's business. Dispersion of the electrical distributing industry, with concerns or branches in even the very small cities, has cut down on the need for a dealer to carry any large electric housewares inventory.

Extending the dating period, with resulting open-end ordering, has brought many wholesalers increased costs at order desk, warehouse and shipping department levels. As more and more dealers take advantage of dating for credit reasons only, without placing the large orders supposed to go with the terms, the distributor has to warehouse larger quantities of electric housewares in anticipation of what are becoming moderately small but frequent orders from the dealers.

The return to smaller but more frequent orders during the fall is increasing the distributor's costs at telephone order, will call, inventory control, invoicing, shipping, etc.—with only billing, unfortunately, relieved of the mad rush.

Credit managers dislike extended dating to retailers because it gives the less ethical a chance to play a tune on the cash register with someone else's money

While most distributors dislike extended dating programs, and their sales departments are too preoccupied with competition to worry, there is little question about the stand of distributors' credit managers. They are against long dating, and their reasons and experiences could fill a book. Primarily, they say, six months dating is unsound from a credit point of view because:

Too many unpredictables are present in normal retail appliance merchandising to enable sound credit predictions six months ahead. Even the well-managed dealership can experience unforeseen trouble—loss of key personnel, new competition, loss of a particular major appliance franchise, illness or personal trouble for the owner.

They can't get complete credit statements—or it's difficult to do so—on retailers who use extended dating from several distributors. Credit bureau reports based on how quickly the dealer is paying his bills, and on which he is overdue, do not indicate

that he may have gone overboard in buying small appliances because his purchases on dating are not due. This is particularly difficult for the credit managers of specialty houses who must judge a dealer's credit for fall purchases of white goods and TV.

Here are just some of the abuses credit managers report:

• Credit bureau reports show dealers who have been slow during the early part of the year begin to pay on time, and in September and October are taking cash discounts. Investigation showed that these dealers were using the proceeds of sales of dated merchandise to pay current bills. Nothing illegal, of course, but a warning sign that trouble might come in January when the distributors want payment for the dated merchandise.

• Refused further merchandise on credit late in the fall, dealers who had taken their limit of dated merchandise from the distributors began to use the income from the sale of that merchandise to buy C. O. D. from other distributors.

• Dealers have been known to use the income from sales of dated merchandise to floor major appliances and television during the Christmas season—conveniently saving the normal bank charge for flooring. Again, not illegal, but the forerunner of trouble in January if those heavy goods are not sold.

• **False Security** — The appliance dealer with no intent to mis-use funds, or to "borrow from Peter to pay Paul," is put in a position that requires expert management when he gets electric housewares on six months dating. The return from sales of electric housewares during the shallow days of July through middle September, without the need to pay for the merchandise, can give the dealer a false sense of success.

Credit managers find that too few dealers make specific provision for setting aside the net cost of dated housewares sold to prepare their concerns for the big bills in January. On questioning, most of these credit managers have to admit that few of the distributors' salesmen are taking the time to work closely with their dealers on such management matters.

• **Lures Credit Risks** — Credit managers see a worsening situation in electric housewares dating. It will result not because of the number of dealers taking small appliances on six months terms, but because of the type of dealers most anxious to get such credit extension. Most large department stores and the larger, full-line, well-financed appliance dealerships are shying away from dating except on products that might be scarce in December.

The merchandising electrical contractor who totals a large electric housewares market for many combination wholesalers has never been interested in dating—one on the counter and one underneath is the extent of most contractors' stocks. Therefore, these better-than-average credit risks are paying their bills on regular terms while the extended terms with increased credit risks are going to the concerns most likely to get into trouble when these accounts come due.

The problems that have come with the extension of electric housewares dating programs have been outlined here because they are a sore spot in appliance distribution today. And the problems are increasing. There is a feeling among many distributors that if the over-all appliance industry should hit a fall slump any year, then January would be a serious period for distributors when they tried to collect for dated merchandise.

But the over-all picture is not without evidence of hope. There certainly are a few bright spots

Spreading electric housewares business over other months of the year has made it necessary for dealers to carry larger inventories at all times—and accustom themselves to it. Efforts of NEMA, NAED and NARDA to spread electric housewares sales over all seasons is helping dealers accept sizeable inventories as normal, and to accept regular buying and billing as normal, too.

Many distributors who are concerned with the trend in electric housewares dating feel that the industry can do something but it first must awaken to what is happening and realize what could happen.

• **Profit As Well As Volume**—They believe that distributor principals must look to the profit as well as the volume figures of their traffic appliance business—particularly at the costs involved in meeting every competitor's dating program. Already there are some wholesalers going back to 120-day dating for the fall of 1955. It is likely that those programs will be extended to four months, with customary January billing.

It seems likely that dating programs will become more of a topic when distributors meet with their electric housewares suppliers. Behind the conferences will be the inference that the sound selling and service programs of these manufacturers' best distributors are being undermined by some of the suppliers' other franchised distributors who offer the same brands on longer terms and, recently, cut prices.

• **Show Sound Economics**—Within some distributorships there is the feeling that many dealers can be sold the idea of starting dating plans in September with well-planned orders for the full Christmas season. Such selling must come through salesmen who are schooled in the practical economics of running an appliance dealership at a profit.

If and when six months or longer dating has to be continued for competitive reasons, there is a need for new billing arrangements, some credit managers state. These guardians of the collections insist that good sales management and field work can make most dealers pay for dated merchandise before they are given additional stock.

And some others believe in establishing part payment programs—return of an old practice that required the dealer to pay, for example, for half his dated merchandise half way through the dating period. Even setting up anticipatory discounts has been suggested as a solution—offering the dealer a declining scale of discount for payments made during the dating period.

So, while there is little being done to stem the trend toward longer dating programs and their attendant problems, there are at least enough possible solutions being discussed.

So far, electric housewares dating is a good thing *going* wrong—but not gone.

Hooper on Housewares:

A Campaign To Profit By

Not only can the distributor build sound sales volume by participating in the Electric Housewares Gift Campaign, but he also has the opportunity to demonstrate to the other branches of the electrical industry how important his position is and what a vital part he plays in the successful distribution of electrical goods. An interview with A. W. Hooper, executive director of N.A.E.D.

What do you think of the progress of the electrical industry's gift campaign now being promoted for the sixth year by the Electric Housewares Section, National Electrical Manufacturers Association?

When the Electric Housewares Gift Campaign was launched, its objective was to stimulate consumer acceptance toward more widespread purchases of electric housewares items as year-round gifts. I believe that some progress can be noted at the distributor level in the direction of that goal. Each year finds more and more distributors launching special programs to promote electric housewares as gifts for anniversaries, weddings and various special observances. I think that the success to date should certainly whet the appetite of all distributors and dealers to take hold of this continuing program.

Do you think the distributor should be giving more attention to the electric housewares gift campaign?

Certainly the opportunities presented to the distributor through active support of the gift campaign would seem to warrant an extra effort by his firm. The target of a billion dollar gift market in electric housewares is one that can be reached. This particular campaign should be attractive to electrical distributors because so much of their business today involves an increasing volume at less profit. I can see in the gift campaign an opportunity to build sound sales volume for the distributor, the dealer, the manufacturer and the consumer.

In addition to the benefits stated in the remarks above, the electrical distributor can benefit in another way by his support of the electric housewares gift campaign. Here again is an opportunity for the electrical distributor to demonstrate to the other branches of the electrical industry how important his position is and what a vital part he plays in the successful distribution of electrical goods. No electrical distributor can afford to overlook any opportunity to show his industry and the general public that he is a vital link in our national economy.

Recognizing that the distributor can contribute much to the campaign, what benefits does he derive from participation in the housewares program.

There are some obvious benefits in that the extra effort called for by this campaign will enable the distributor's salesmen to make additional customer contacts and perhaps open the door to additional sales of other items sold by the wholesaler. The distributor's salesman should find in the electric housewares gift campaign an opportunity to use a new sales approach with some of his customers. Discussing this campaign with the dealer offers the wholesaler's salesman a fine change of pace sales approach that can be most remunerative.

It should be noted that the success of a national industry-wide campaign requires a great deal of coordination on the part of all interested parties. It should also be noted that this is a two-way street. If we review the original organization chart for the electric housewares gift campaign we note that the entire campaign passes through the distributor.

The qualified, soundly financed, well organized electrical distributor recognizes that one of his most important functions in the sale of electric housewares is the special selling and promotional effort that his firm can put forth. The electrical distributor referred to here has the know-how, the sales force and the facilities to make this gift campaign successful. In the past few years we have seen a problem creeping up which threatens to strangle this project. It was stated very clearly by Mr. Samuel Fingrutd, Chairman of N.A.E.D.'s Electric Housewares Committee, when he said in a speech recently:

> *"In every city there may be ten or fifteen distributors with four or five doing 85 percent of the selling and promotional effort, and possibly getting 85 per cent of the business. But that extra 15 per cent goes down the drain when it could mean the difference between profit and loss to these important distributors."*

I think it is generally recognized that the electrical distributor is essential to the success of this campaign. However, I think it has not been realized that the extra effort, time and money required from the electrical distributor cannot be obtained unless the benefits are more than paper promises.

Arthur W. Hooper

How much of a stake do you think the average combination distributor has in the electric housewares business?

It has been established that the major distribution of electric housewares is through the combination electrical wholesale distributor. Recently when N.A.E.D. posed a question to its members handling electric housewares as to whether they wanted to be associated with the program of the Apparatus and Supplies Division or the program of the Specialty Appliance Division, it is interesting to note that the overwhelming opinion was the electric housewares business is closer to the Apparatus and Supplies business than is the Specialty Appliance business.

I think this is a fact that the entire electrical industry should and must recognize if this business is to continue to grow.

I believe that a recent study showed around 70 per cent of the Apparatus and Supplies type of electrical distributors handle electric housewares. Thus we can assume the electric housewares business is fitted to the combination-type electrical distributor.

It seems to me that the electrical wholesale distributor is a completely qualified outlet for electric housewares at the wholesale level and consequently has a major stake in the electric housewares business. Therefore, a little more concentration of interest in the electrical distributor—as a group—is definitely warranted and can lead directly and quickly to the billion dollar target.

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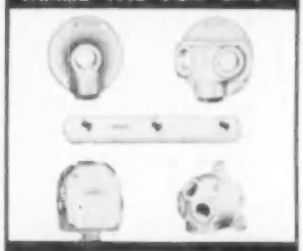

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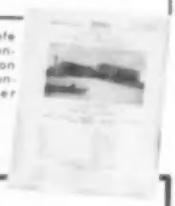

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Providence Electric Used to Send New Salesmen Out Cold:

Now They Use Their Own

FINDING and keeping good outside salesmen is not a unique problem for distributors. But in seeking an answer, Providence Electric Co. came up with its own solution—and some outspoken reasoning.

"We used to be nice guys," claims Murray Cohen, vice president of the Providence, R. I., firm. "Men would quit on us, and we'd take it. Poor salesmen would stick with us six or eight years, and we'd stick with them. Two years ago, we stopped being so nice—and we solved our problems. Today we've got a good group of salesmen, and our selling job is being done right."

• **Turnover** — Cohen describes the firm's problems as complex, and says they were not at all unusual in the Providence area.

After World War II, salesmen literally came and went at Providence Electric. Time and money would be spent training new men; then, before they had proved their value either to the firm or themselves, they would move on to another job.

One factor in this turnover was the intense competition among distributors. Where there were less than 10 firms before 1945, there are now over 30. The tight labor market in the New England area was another factor; qualified men were hard to attract and keep.

An added problem was the firm's fast-growing business. There were too few hands to handle the extra work. As the pressure got worse, new men went outside after two or three days' briefing on the company's operation. More detailed training was out of the question. Nor was there enough time for management to help the new men over inevitable rough spots once they were on the road.

On the other side of the coin were the veteran salesmen. Too often, they were poor producers. But caught between these men and the turnover among new salesmen, Providence Electric had its hands full just holding on.

In 1952, policy was completely reversed. It now includes these ideas:

• Train new men more thoroughly in company practices before they go outside.

• Help them as much as possible, especially during the "tough first year."

• If they fail to make progress within the first six or twelve months, discharge them and start over.

"From our standpoint," Cohen maintains, "this is the only realistic policy. We found it costs too much, both in terms of training expense and of eventual productiveness, to keep poor men.

"Our new policy balances out. If we sometimes have to let a man go, we try harder to avoid this with more training and more help. This policy may even mean more security for our salesmen in the long run, since we now work closely with them and try to make them realize that the company is behind them," he adds.

• **New Approach**—Under the new setup, Providence Electric seeks out fresh salesmen through newspaper ads, agencies and business contacts. Rather than going on the road within two or three days, new men are thoroughly coached on company operations. Then they go outside, but not to sink or

Text continues on page 62

First — Recruit new salesmen with ads, then select after careful interviews

Second — Coach them on the company's methods: accounting, use of catalogs

SALES TRAINING—which includes training on selling, company procedures and electrical products—grows in importance each year, as the distributor's business becomes more complex. That is agreed.

But there are as many viewpoints on how to handle sales training programs as there are distributors and distributors' salesmen. *Electrical Wholesaling* here presents one firm's solution to its serious personnel problems, and strongly-worded views on why this solution was necessary.

Short Course in Selling

THE EVENING BULLETIN,

Financial

Employment

Business Opportur

33

Help Male—Salesmen 33A

RECRUITING at Providence Electric is through newspaper ads—which give company name—plus agencies and business contacts. Name is included in ad to discourage second-time applicants and to weed out salesmen who obviously would not fit into the company.

INTERVIEWING prospect Charles Cohn (right) is Murray Cohen, vice president. If Cohn passes, he talks to the sales manager, Leonard Cummings, and then meets Cohen, Cummings and President Samuel Cohen in a four-way discussion. Result: Cohn was hired.

ACCOUNTING and billing procedures come first in the new 15-30 day training period, following introductions to other employees. The trainee's first few days are spent with Murray Cohen, getting oriented and asking questions about the firm's operations.

CATALOG study is essential for the trainee-salesman. Here Cohn learns his products and makes certain his catalog is complete. To further enlarge his knowledge of products, he talks with visiting manufacturer representatives about their lines.

Turn page for more on Providence Electric's training system ▶

Third—Inside, turn them loose to learn the warehouse, counter

WAREHOUSING is learned while working there. Here Cohn unpacks and checks a newly delivered television set. He checks delivery invoices, warehouse stock and display models—thus backing up his catalog list with a concrete knowledge of Providence Electric stock and warehouse procedures.

COUNTER dealings with customers take up a portion of the training period. Again, Cohn learns stock—plus customer personalities and needs. He next goes on the road; training periods vary from 15-30 days, depending on how the salesman shapes up on his own inside and his eagerness to "get going."

Their Own Short Course in Selling (cont.)

swim; more effort is put into helping them with day-to-day selling problems and lots of basic product information.

Management was long aware that this new approach was needed. But it wasn't until the New England labor market loosened up after the Korean War that the firm felt free to act.

"We simply didn't have the grade of men to start our program earlier," Cohen says. "No matter how much you do for a man, he won't pan out as a salesman unless he's smart and really willing to work."

Cohen feels that getting this type of salesman has been a problem since the end of World War II. "Too many salesmen want to start at the top nowadays. Most of them just aren't willing to do the extra selling that means real profits to themselves and to us."

• **Informal Training** — Providence Electric's inside training program is no school, complete with lectures and schedules. It is informal, encouraging the trainee to ask questions and learn by doing. After he is shown paperwork procedures, he is put on his own. He goes from department to department, moving along when he feels he knows the operation. Cohen is always nearby to offer suggestions and help out.

When the new man has covered the inside operation and thinks he is ready to go, Cohen sends him outside. This inside period is flexible and varies from two to four weeks, depending on the man.

"We could train them inside for years," Cohen admits, "but we think a good man can pick up at least the fundamentals in a month. Then we put him on the road—and help him in every way."

This help includes calls to Cohen whenever troubles arise. But the main element is frequent sales meetings. These cover policies, accounts receivable and field problems. Moreover, manufacturer representatives give frequent presentations on products to the firm's entire sales force.

"The first year is the toughest," Cohen says. "Not only is the man moving slowly, but he doesn't have too much confidence. We try to help him over that hump."

• **Law of Averages**—When the firm inaugurated its training program, it switched at the same time to a "percentage outlook" on personnel.

"You can't always be right about a man the first time you meet him," Cohen says. "We now help our salesmen as much as we can; if they don't fit in, we consider the law of averages and let them go. We've held on to poor men too long in the past."

The longer men with poor prospects are kept on the payroll, the more they cost, Cohen maintains. Not only is there the expense of helping and training them until they become productive, but there is the certainty that this price will have to be paid again later on for a better man.

Cohen insists there is lots of intuition involved in selecting a new salesman (and more than a little luck in getting the right one), but he works from specific, tangible requirements.

"The first is willingness to work,

Fourth—Outside, help them with customer contacts, sales meetings

TELEPHONE contacts, once Cohn is on the road, are encouraged. They cut down on personal calls, make sales follow-ups easier and mean extra service. Calls to the office from the road are encouraged, too; management is quick to help with salesmen's problems, especially during that crucial first year.

SALES MEETINGS are frequent and thorough. Here Murray Cohen acts the disbelieving dealer as Cohn presents his story; other salesmen interrupt if presentation falls down. These meetings include detailed discussions of company buying, credit and selling. Frequent manufacturers meetings are also held.

pure and simple. Volume, by necessity, is important in this business. A salesman must make calls to write orders. We figure, from experience, that about one-third of all calls result in orders; therefore it's better to make 20 than 10 calls. And to do that, you've got to be moving by seven in the morning."

• **Need Experience** — Providence Electric prefers that its prospective salesman have some electrical experience. This background is more valuable than general selling, since product knowledge is a first requirement. "Appliance retailing and wholesaling are as different as night and day," Cohen says, "but we'll take a man with retailing experience because he knows his products."

One of the firm's best salesmen in the supplies field—there are six salesmen in total, three on appliances and three on supplies—used to work for a contractor. He knows the business and talks the contractors' language. Combining this background with hard work, he has made up to 27 calls a day and has opened a number of accounts.

When interviewing prospects, Cohen prefers that they are neatly but not flashily dressed and he wants them intelligent and sociable (although talkativeness doesn't help; he's found he has to "discount accomplishment stories about 85 per cent"). Final requirement: three references, which are checked by Samuel Cohen, president of the firm. "Considering the money and goods outside men handle, dishonesty is out of the question," Murray Cohen adds.

• **Valuable Men**—Many firms train their outside men over lengthy periods in the office and warehouse. Cohen puts little stock in this.

"We've had no luck sending inside men out. For one thing, men become valuable inside; they know our customers and our stock, and we can't afford to move them.

"What's worse," he continues, "we've found that some of the best inside men don't work out on the road. They're used to pressure, but there is no one pushing them outside."

Moreover, Cohen thinks the problems inside and outside are completely different for the salesman.

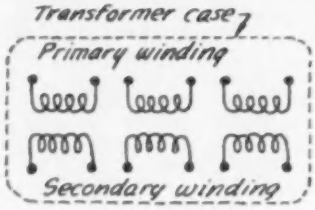
"Just take the things you have to show an appliance man. He has to know credit operations and limits. He must know the setup on cooperative advertising, and how to help dealers merchandise.

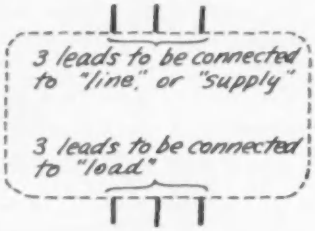
"That's just a beginning," Cohen adds. "And these are things a man can't learn inside. He learns products and company procedures, period. We figure we can teach these elements in two weeks to a month."

Sure that the firm's personnel problems are under control, Cohen is looking to the immediate future. More work with salesmen in the field is planned. And he hopes to return to his previous practice of calling with salesmen on each customer once a year.

The latter is particularly important, since Providence Electric regards personal friendship as a distributor's major asset. "Friendship is our biggest card," Cohen maintains. "It's something I hope we never grow away from. With good service, regular calls and friendliness, your business is solid."

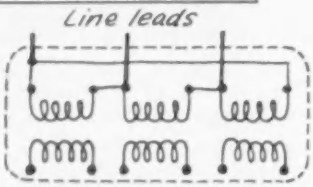
THREE-PHASE TRANSFORMERS





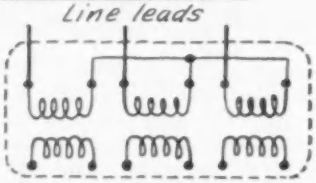
A three-phase transformer is the equivalent of three identical single-phase transformers in a single case, wound on a single core. Connections between phases are usually made inside case. Three "line" leads and three "load" leads are brought out of the case.

DELTA CONNECTION



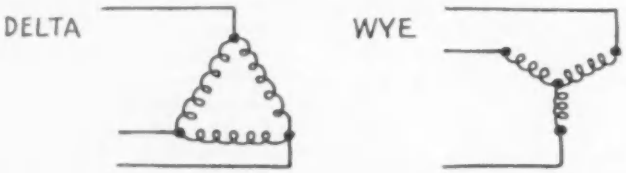
The primary winding of this transformer is connected in "delta". The three winding sections are hooked in tandem, and the 3 line leads are connected as shown.

WYE CONNECTION

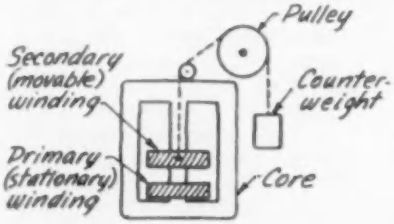


The primary of this transformer is connected in "wye" or "star". One end of each of the 3 windings is hooked together, and the 3 line leads are connected as shown.

The connections above are usually represented in simplified form as shown below. These simplified diagrams show connections only and do not indicate physical positions of the windings.

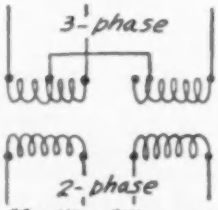


CONSTANT CURRENT TRANSFORMER



The "station" type constant current transformer illustrates the basic arrangement of component parts.

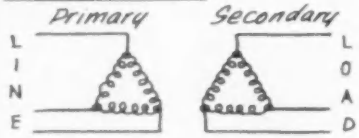
SCOTT CONNECTION



The "Scott" or "T" connection is one way to obtain 2-phase power from a 3-phase source or vice versa.

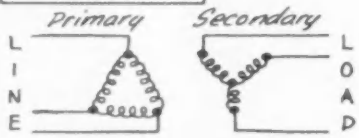
COMMON 3-PHASE CONNECTIONS

DELTA-DELTA



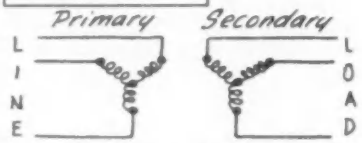
Primary and secondary are both connected in delta.

DELTA-WYE



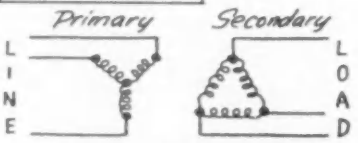
Primary is connected in delta, secondary in wye.

WYE-WYE



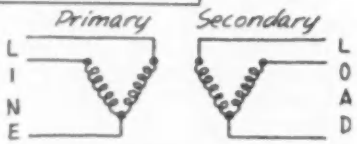
Primary and secondary are both connected in wye.

WYE-DELTA



Primary is connected in wye, secondary in delta.

OPEN DELTA



Two single-phase transformers are often connected to transform small amounts of 3-phase power, although the efficiency is lower and the voltage is less constant than that of an installation using three transformers.

Transformers—III

By W. J. Novak and J. F. McPartland

ANY bank of 3-phase transformers has its primary and secondary windings connected in one of several different ways. These ways are familiarly described in industry terminology as "wye-to-wye", "delta-to-delta", "wye to-delta" and "delta-to-wye." These are the most common types of 3-phase transformer connections; and because the descriptive phrases used occur so frequently in conversation on electrical systems, some understanding of the terms should be had.

In the expression "wye-to-wye", the first "wye" indicates that the three windings which are fed by the 3-phase supply line are connected with a particular relationship among the three ac voltages. The second "wye" indicates that the three windings which make up the 3-phase secondary and feed the load are also connected with the same particular relationship among the three voltage phases. In the expression "delta-to-delta", the "delta" terms indicate that both the primary and secondary of the 3-phase transformer bank have the same relationship among the voltage phases, a different relationship, however, than that which exists among the voltage phases in a wye connection. In the expression "wye-to-delta" or in "delta-to-wye", the terms are different to indicate that the primary windings of the transformer bank are connected with one relationship among voltage phases, while the secondary windings are connected with another relationship.

Another not uncommon connection for transforming 3-phase power from one voltage level to another is called the "vee-to-vee" or "open delta" connection. Using this type of connection for both the primary and secondary sides of the transformer bank, it is necessary to use only two windings on each side. Instead of using three single-phase transformers, therefore, only two single-phase transformers will do the job and still provide 3-phase transformation.

A special connection called the "Scott" or "T" connection also makes possible the use of only two single-phase transformers for 3-phase voltage transformation. The connection can also be utilized for changing 3-phase power to 2-phase power and vice versa.

Tap changing on transformers consists of changing the connections to the transformer winding to alter the transformer's ratio of voltage transformation. Some means is usually provided on transformers to allow tap changing to increase or decrease the step-up or step-down of the voltage, as voltage-drop might require in many cases. Simply moving a line connection from one terminal to another on the transformer is one manual way of changing taps. Such a procedure, however, is time-consuming and involves disconnecting and disassembling the transformer. In smaller transformers, therefore, an insulated switch which sticks up out of the transformer housing allows quick and convenient changing of taps, although the circuit is opened momentarily.

Tap changing on large power transformers can be done while the unit is operating, without opening the circuit. This allows regulation of voltage on feeders, automatically and without the use of induction regulators. And in many industrial applications, control and adjustment of voltage is highly desirable.

Most transformers used today, for electrical transmission and distribution, are designated "constant-potential" (or "constant-voltage") transformers. This means that the voltage across the secondary winding remains fairly constant for any change in load, the secondary current being the variable which changes with load. There are, however, certain applications where a constant current is required. A typical case of this is series street lighting. In such applications, it is required that the current feeding the series load be maintained constant for any value of load. In a series street lighting system, the current through all of the lamps connected in series must be held constant whether lamps are added or taken out of the series circuit. To provide constant-current, a special transformer is used.

A **"constant-current" transformer** is constructed such that the primary and secondary can move with respect to each other. Either the primary is fixed and the secondary can move, or the secondary is fixed and the primary can move. The transformer itself, under operating conditions, produces magnetic forces within itself to move the primary and secondary closer together or further apart, as required to maintain constant current through the load. While the transformer is operating with a particular load, the two windings maintain fixed positions. If, however, there is a change in the number of lamps on the circuit, the windings will move together or apart whichever is required to bring the current in the circuit back to the desired constant value.

Instrument Transformers

Direct connection between measuring instruments and high voltage circuits is not possible due to the delicate nature of the instruments which would be damaged by high voltages. Other factors also make it undesirable to use meters directly on high voltage.

A **"potential transformer"** is an instrument transformer used to connect a voltmeter to a high voltage ac circuit in which it is desired to measure the voltage. These transformers are similar to the constant-potential transformers used in power circuits, except that the power rating of the potential transformer is always low (50 to 500 watts). Potential transformers are available in the dry type and the oil-immersed type, depending upon their maximum voltage rating. Their primaries are rated for voltages like 35,000 volts; their secondaries are rated at 115-120 volts.

A **"current transformer"** is another type of instrument transformer used to connect ammeters and current coils of instruments into high voltage lines. One type of current transformer is constructed so that the cable in which current is to be measured can pass directly through a hole in the transformer assembly. The cable thereby becomes the primary of the transformer, even though only a short length of it passes through the assembly. The secondary consists of a winding of many turns within the transformer assembly, and the measuring instrument is connected to the secondary. In this type of current transformer, used for measuring high currents in large conductors, there are no connections between the transformer and the large conductor. In current transformers of smaller rating, a primary winding within the transformer housing is often connected in series in the line in which the current is to be measured.

Next Month: Motor Controls

WIRE ON TIME PANEL was one of the highlights of the conference. Composed of six industry figures from all parts of the country (three of them shown here), the panel discussed various payment and promotion plans for adequate wiring now in existence.

FARM WIRING PANELISTS compare notes before taking place on dais. Their findings, as expressed to the conference audience: the electrical farm market is probably greater than we can imagine—but it has to be developed with educational salesmanship.

TROPHY WINNER John M. Newton, president, Oakes Electrical Supply Co., Holyoke, Mass., accepts Look Magazine's "Merchandising Achievement" award from the magazine's Chicago vice president, Fred Bauer. Mr. Newton's company won the award for the most outstanding performance by a distributor in promoting adequate wiring.

This One

A VISITOR to last month's Adequate Wiring Conference in Chicago's LaSalle Hotel was heard to remark casually to a friend at the close of the first morning's session: "Too bad everyone in the industry couldn't have been here today to listen to how adequate wiring is catching hold all over the country."

Naturally the whole industry couldn't show up, but 383 representatives did, the biggest registration ever recorded in the annual conference's 11-year history. That those attending the meeting were interested in adequate wiring is a foregone conclusion. That they came to learn as much about the program as possible and to hear of ways and means by which they can generate activity at the local level was brought out visibly by the genuine enthusiasm they displayed in the panel and audience discussions.

• **From National to Local**—This fact had hit home all during the conference: Use the information you get at this national meeting and tailor it to suit subsequent local meetings held during the rest of the year.

A. F. Metz, chairman of the board, The Okonite Co., put this idea into words when he said in his prepared talk: ". . . Take away from this conference a determination to intensify

SEEN AT THE AW MEETING: L. R. Klose, II, third from left, talks with three other members of the newly-formed Kalamazoo, Mich., adequate wiring bureau. In the middle photo, A. P. Hammerstrom, Wesco, Toledo (left), with Henry Czech, managing director, Chicago Electrical Wholesalers Assn. Right photo shows L. E. Barrett, Fred R. Eiseman and Arthur W. Hooper.

Had Them All Beat by Far

The Adequate Wiring Conference in Chicago had the largest registration and the most active audience response and participation in the panel discussions in its 11-year history. These are the signposts that, if placed at the local as well as national level, point to a bigger future for adequate wiring

your present activity in the field of adequate wiring selling and . . . join with those of us who work at the national level in urging all electrical industry groups who are not now engaged in adequate wiring selling to join the team. The end result will be a brighter future for us all."

Out of the 383 that attended the conference, one group was noticeable by its absence. In his keynote address, John W. Evers, president, Commonwealth Edison Co., commented on the vacancy when he said: "With one exception, all of the groups I have referred to (industry groups) are represented at this conference. Unfortunately the one exception is the most important and the biggest of the groups involved—the people who finally must make the decision to do something about (adequate wiring)—the homeowners."

• **Gone but Not Forgotten**—But while the homeowner was not present his needs and his intentions were not forgotten. In the panel discussion on time payment plans for home wiring, the homeowner's convenience was the topic—what plans were available to him, how could the industry best serve his interests, where can the industry improve its relations with him (advertising, publicity, direct mail.)

Another kind of homeowner came in for quite a bit of discussion—the farmer. Likening the farm to a "small industrial plant," members of the panel that talked on, "Telling and Selling the Farm Wiring Story," reported that "our experience in selling to the farm market tells us that it is not an easy job. We're convinced, however, that it can be done . . . the electrical farm market exists and is probably greater than any of us can imagine. The peculiarity of this market lies in the fact that this is a market that has to be developed with educational salesmanship."

• **The Distributor's Role**—How one group in the industry—the distributor—can take action in the adequate wiring program locally was explained by L. R. Klose, II, L. R. Klose Electric Co., Kalamazoo, Mich. Mr. Klose was responsible for setting up a local adequate wiring bureau composed of all elements of the electrical trade in Kalamazoo. Explaining his part in the groundwork necessary to forming such a bureau, Mr. Klose digressed to comment on the distributor's role in adequate wiring: "Every electrical distributor should be interested in the adequate wiring program . . . He can best serve the program by doing missionary work. If he is a real distributor and not just a distributor of wares, he should be interested in the welfare and safety of life and property in his community, and certainly an adequate wiring program will lessen the hazards of fire as a result of overloaded circuits."

On the following page, the highlights of the 11th Adequate Wiring Conference are presented. ➡

These Were the Highlights of the AW Meeting

How to close more "wire on time" sales leads

John S. McDermott, executive manager of the Electric Association of Kansas City, Mo., recognized one major weakness in Kansas City's "wire on time" program for adequate wiring—the contractor's inability to follow up on leads and close the sale. He ventured that contractors do not have real salesmen on their payroll. They have journeymen who can give the estimate of the work to be done but these journeymen cannot utilize the necessary salesmanship for closure. Kansas City came up with a plan to solve this problem. The NECA contractor group in that city has employed a specialty salesman to go out on wiring calls. This particular man has had a great deal of experience in selling, he carries a union card and has owned and operated a successful contracting business in the past. On the contractors' payroll, he makes calls on all those who have responded to adequate wiring advertising. He is now finding it necessary to make a great many call-backs when the husband is at home—which means after 5 p.m. and on Saturdays and Sundays. His estimates are the final word on the wiring job, such estimates being sent to the contractor group for parcelling out in an equitable manner among members. To date, this estimator-salesman has more than earned his salary.

Another suggestion brought from the conference floor was this: Use the services of retired service men of utility firms. These men would be glad to spend a few hours in the day to make calls on old customers and influence them in adequate wiring. Their salary—a percentage of the wiring sales closed.

Recommendations for wiring capacities on the farm

Leo O. Stoeber, manager of the Farmers Electric Service Center, Bloomington, Ill., made these worthwhile recommendations on farm wiring: For farm residences—standard entrance equipment should be 100-amp. service on average farms. This is absolutely necessary to provide ample power for the many electrical devices now in use in the farm home. In most cases this will provide for additional electrical expansion. If you recommend 100-amp. service for the home, recommend 200-amp. service for the entire farm homestead because any real labor saving devices that will be installed will require this additional capacity. On larger farms where the foreseeable load will exceed 200-amp. capacity, strongly recommend 400-amp service to handle the load.

Adequate wiring campaign material for 1955 available

L. E. Barrett, chairman of the National Adequate Wiring Bureau's Plan Committee, described the master kit containing adequate wiring material for the year ahead. Included in the master kit is promotional material developed individually for the wiring modernization market, for the new home market, for electrical contractors, dealers and for the educational field and for the formation of new local adequate wiring bureaus. One of the booklets contained in this master kit is entitled, "Wire on Time Plans That Tick." It gives a step-by-step description of the mechanics involved in setting up financing plans for wiring modernization. A companion piece is a consumer folder, "What's All This About Wiring on Easy Monthly Payments?"

What's the best way to advertise adequate wiring?

The question, "What is the most effective form of advertising used to promote adequate wiring to the public?" was put to the "Wire on Time" panel. The consensus of opinion was that a combination of media was the best (newspaper, radio, TV). The spoken word is better than the written. Radio does the best job for the least money; television makes more impressions. One panelist thought that the main reason people rewired was because of the safety angle. This panelist's electric league used the fire chief of the city in an advertisement on adequate wiring to warn readers of the fire hazards of inadequate wiring.

Cincinnati "wire on time" program brought up to date

Cincinnati Gas & Electric's Frank Wiatt brought the conference up to date on the city's wire on time program started in 1953. To date, 167 contractors participated in the program and completed 1,110 wiring jobs in the city. The total amount of money spent by consumers adds up to $271,939. The wiring jobs run from $24 to $2,000, the average being $245. Twenty-five per cent of the contractors are doing 64 per cent of the over-all work; 75 per cent are doing 26 per cent. Average khr. increase over a 12-month period—760.

The public is wising up on adequate wiring

The residential wiring panel remarked that possibly the homeowner and the homebuilder are thinking more in terms of adequate wiring than the industry gives them credit for. As an example, one member stated, the committee attending a recent meeting of the National Association of Home Builders had sat "open-mouthed" when the voluntary 100-amp. service standard was included into the minutes of the meeting. Conclusion: Take advantage of the public's awareness of adequate wiring by pushing for the maximum service instead of the minimum—insist on preparing the home for future loads instead of just for present demands.

when a customer asks for a "time switch"...

he needs it right away! A job is waiting for it . . . He will probably take any make of time switch you have in stock. BUT . . . you can do yourself and him a BIG favor if you . . .

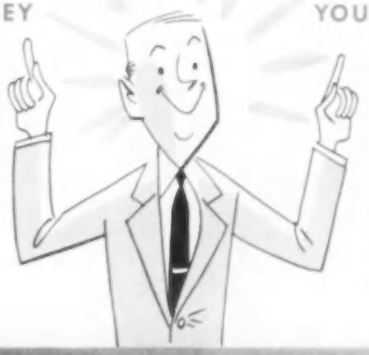
...sell him a Sangamo...

It will do his job *better*. He can choose the low-priced Type B, single-pole, single-throw in NEMA Standard 30 amp rating . . . or a Sangamo Heavy Duty Switch—available in models for almost any conceivable application.

you benefit two ways!

YOU MAKE MORE MONEY

You make a bigger margin of profit when you sell Sangamo Time Switches than you do on other makes of time switches. And they're easy to sell . . . the industry's biggest advertising program has given them a ready customer acceptance.



YOU WIN SATISFIED CUSTOMERS

Satisfied customers are the backbone of any successful business. When you sell a Sangamo Time Switch, chances are the customer won't be back with a complaint because Sangamo Time Switches are rugged . . . they stand rough handling. Put 'em in and forget 'em—that's what most Sangamo users do.

ST55-4

SANGAMO ELECTRIC COMPANY
SPRINGFIELD, ILLINOIS

Handle ROEBLING and you'll

ROEBLING Building Wires and Cables

. . . a full line with every modern feature for every type of service.

ROEBLING Control Cables

. . . (1) Roeplastic (2) Roeprene (3) Polyethylene and Roeplastic for all installations.

ROEPRENE Power Cable

. . . Roeprene (neoprene) Style RR Cables for all types of service requirements, 600 V. through 7500 V.

ROEWELD Welding Cable

Lead or trailing and electrode holder . . . recommended for high abrasive and moisture resistance.

ROECLAD Portable Power Cables

for shovels, dredges, air compressors, etc.

ROECLAD Lifting Magnet Cable

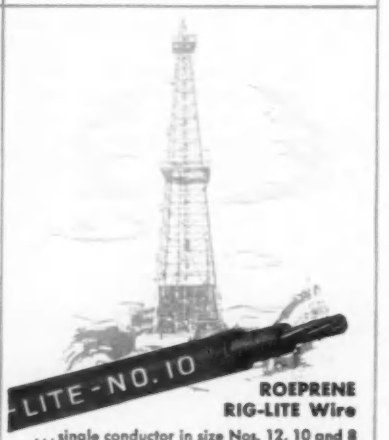
built for longest service life that will outperform competitive cables.

ROEPRENE Self-Supporting Drop Cable

. . . three-conductor . . . for overhead secondary applications and service drops.

ROEPLASTIC Bus Drop Cable

. . . for connecting motors to bus system.



ROEPRENE RIG-LITE Wire

. . . single conductor in size Nos. 12, 10 and 8 A. W. G., manufactured specifically for drilling rig service.

meet every wire and cable need

ROEBLING Series Street Lighting Cable

Roeplastic or Roeprene, for use in conduit or ducts, or for direct burial.

ROEBLING Varnished Cambric Cable

. . . heat resistant; ideal for generator, motor, transformer and oil switch leads, for service up to 15,000 V.

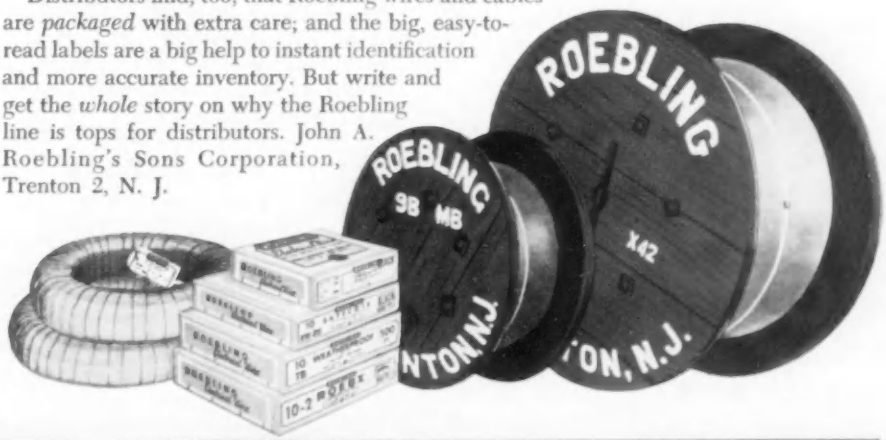
ROEPRENE Mine Cables

. . . complete lines of mining machine, locomotive, and mine power feeder cable.

YOU CAN CHALK THAT UP as one big reason why you'll do better with the Roebling line. Whatever your customers want, there's the right Roebling wire or cable—right size—right construction—right insulation—and you can always make good with full and prompt deliveries.

In addition, these electrical wires and cables are designed and manufactured to the high quality standards that have made Roebling the best known name in wire and wire products. Wrapped up with every sale are the efficiency, long life and economy which assure customer satisfaction and the repeat business that builds profits.

Distributors find, too, that Roebling wires and cables are *packaged* with extra care; and the big, easy-to-read labels are a big help to instant identification and more accurate inventory. But write and get the *whole* story on why the Roebling line is tops for distributors. John A. Roebling's Sons Corporation, Trenton 2, N. J.



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BRANCHES: ATLANTA, 934 AVON AVE. • BOSTON, 51 SLEEPER ST. & 5 PITTSBURGH ST. • CHICAGO, 5525 W. ROOSEVELT RD. • CINCINNATI, 3253 FREDONIA AVE. • CLEVELAND, 13225 LAKEWOOD HGTS. BLVD. • DENVER, 4801 JACKSON ST. • DETROIT, 915 FISHER BLDG. • HOUSTON, 6216 NAVIGATION BLVD. • LOS ANGELES, 5340 E. HARBOR ST. • NEW YORK, 19 RECTOR ST. • ODESSA, TEXAS, 1920 E. 2ND ST. • PHILADELPHIA, 230 VINE ST. • PITTSBURGH, ROOM 239, HENRY W. OLIVER BLDG. • ROCHESTER, 1 FLINT ST. • ST. LOUIS, 3001 DELMAR BLVD. • SALT LAKE CITY, 526 W. 8TH SOUTH ST. • SAN FRANCISCO, 1740 17TH ST. • SEATTLE, 900 1ST AVE. S. TULSA, 321 N. CHEYENNE ST. • EXPORT SALES OFFICE, TRENTON 2, N. J.

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Better Designed
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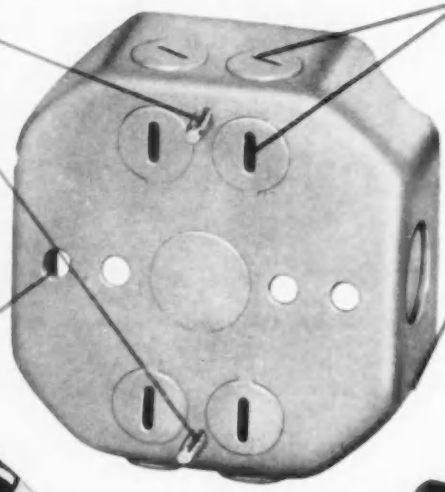
ALL CLAMP SCREWS ARE STAKED!

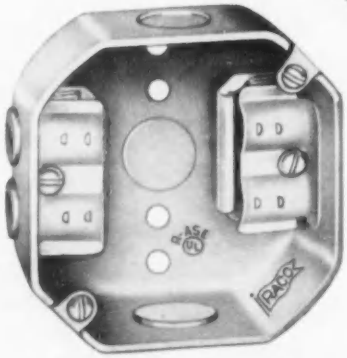
Raco clamp screws cannot work loose. Clamps and screws and boxes are always completely assembled when received. Clamp screws are extra long with tapered points for easy starting.



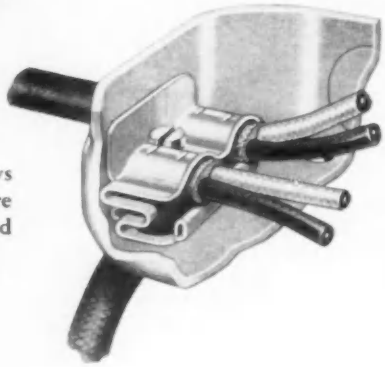
Pri-Outs easily removed with one quick, easy twist of a screwdriver. Properly located for side or bottom entry.

Nail holes for quicker, easier mounting.

All Raco Octagon Boxes have rounded corners for perfect fit in a round hole.



The illustration at right shows how the Raco Pri-Outs are used in both side-entry and bottom-entry installations.



RACO BOX No. 149–N CLAMPS

There's lots of wiring room in this popular Raco 4" Octagon Box. Illustrated with the N Clamp for non-metallic cable, it is available with any type of clamp to suit your needs.

YOU'LL SAVE MONEY WHEN YOU INSTALL RACO BOXES

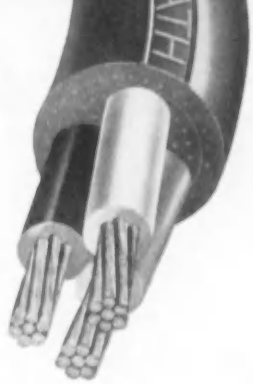
RACO N CLAMP

Arrows Indicate Pressure Points

Non-Metallic cables are gripped securely by the Raco N Clamp. Stand-up design holds clamp open to receive cable. No fumbling. Smooth surfaces of the pressure points assure a firm grip with no danger of injury to the cable.

You can Always Depend on Raco

ALL-STEEL EQUIPMENT INC. • Aurora, Illinois

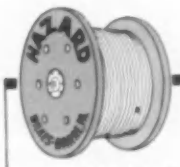


and for the same reason: MOLD CURING

Every foot of rubber-faced conveyor belting in service today is vulcanized in a metal mold—mold-cured—to give it the toughness it must have to stand the continuous sharp blows, grinding abrasion and shattering vibration of its day's work.

Every foot of Hazacord is mold-cured, too—from tiny flexible cords to heavy high-voltage shovel cables—guaranteeing the toughness that keeps electrical equipment on the job in the roughest locations and worst possible weather. Hazacord cables are built to last with an insulation that is electrically and mechanically strong—protected by a Hazaprene ZBF sheath made with neoprene under a formula that brings out all of its toughness and weather resistance. They have proved their "sticking" power by years of trouble-free operation in such rugged services as coal and metal mining, steel mills and utility portable distribution centers.

Whenever you need a portable cord or cable, it will pay you to specify Hazacord—mold-cured to give the same toughness and long service life you expect from mold-cured conveyor belts. See your jobber or your nearest Hazacord representative for information on Hazacords or write for Bulletin H-451, Hazard Insulated Wire Works, Division of The Okonite Company, Passaic, N. J.



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HAZACORD

Mold-Cured

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NEW...

UNI-BUS BUSWAY

A New Concept in busway systems that obsoletes all other methods of carrying current.

- Low Voltage Drop in ***PLUG-IN*** AND ***FEEDER*** TYPES.
- High Short Circuit Strength in ***PLUG-IN*** AND ***FEEDER*** TYPES.
- ***ONE FLEXIBLE FITTING*** makes elbows, offsets —simplifies engineering and eliminates costly delays.
- ***COMPLETE SAFETY*** because live bus bars at plug outlets and live connections in plugs are eliminated.

And All at Lower Cost!

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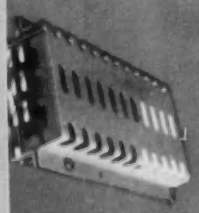

ECONOMY

New clip-on hanger and lighter weight busway mean less installation time. Feeder system often costs less than conduit and wire, yet is 100% reusable.

FLEXIBILITY

Flexible connector eliminates all special fittings so that a minimum number of components meet all job requirements. Plug-in and feeder systems interchangeable.

SAFETY

Interlocked safety slide over plug outlet cannot be opened until covered by plug. Interlocked cover and visible contacts in plug are positive assurance of safety.

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No. S-33

MARKETING INFORMATION

SALES INFORMATION

TO ALL SALES REPRESENTATIVES and all distributors P.

SUBJECT: SELLING UNI-BUS BUSWAY

Try as we may, we can't by ourselves do the kind of a job that will bring the maximum return. An additional selling force could do it and the most natural mass-selling force is the electrical distributor. Practically the entire low-voltage busway industry has sold its products through this channel since the beginning and the industrial buyer looks to his distributor for this kind of product.

SELLING THROUGH DISTRIBUTORS

As many of you know, either you sell through distributors or you don't. There can be no middle ground because distributors are not inclined to sell your product if you are in competition with them. Accordingly, it is our policy that we will sell UNI-BUS busway only through our authorized electrical distributors. This means a distributor recommended by you and authorized by headquarters.

WHICH DISTRIBUTORS

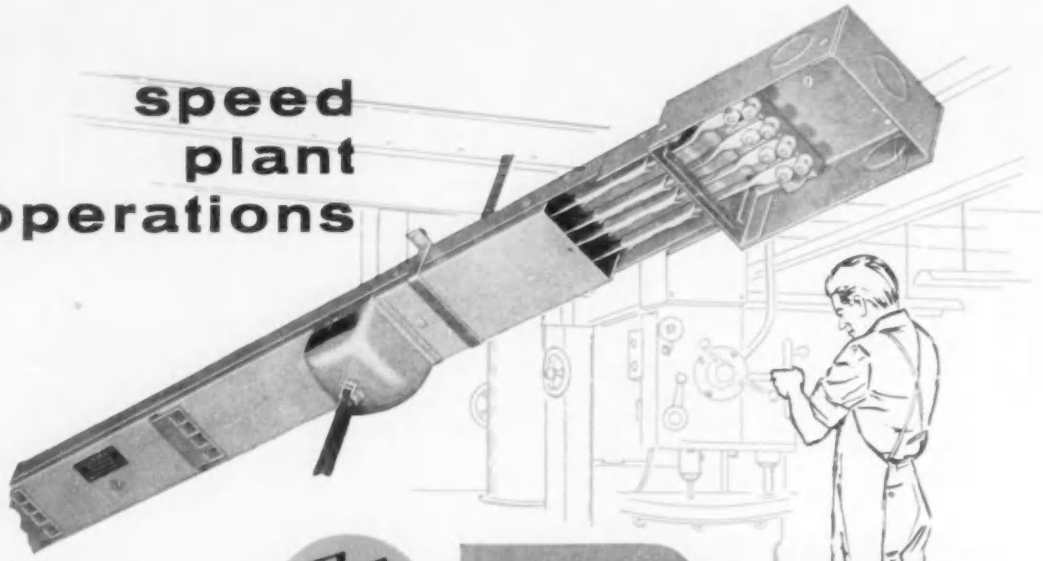
UNI-BUS busway, because of its position in an overall electrical distribution system, is naturally associated with apparatus-type equipment as contrasted with wiring devices, etc. So it is the apparatus-type distributor who can do the best job for us. He should have a good technically-trained sales force, good contacts with large contractors and industrials, and know how to "negotiate" a packaged proposition. It would be desirable if he would carry our line exclusively but we could not accept a distributor whose financial connections require preference of effort for another line.

Likewise, the Roller-Smith franchise becomes worthless and provides no selling stimulus if we are willing to accept an order from "any distributor".

OTHER PRODUCTS

The Roller-Smith franchise has many other advantages to the independent distributor besides UNI-BUS busway. For the first time he can make up a "package" consisting of high and low-voltage switchgear, unit substations and low-voltage busway. Our discount schedules are set up to meet this situation. However, due to industry practices, this must be a non-exclusive arrangement and we reserve the right to quote and accept orders direct without distributor commission, particularly on Government and utility propositions.

ISSUED BY	DATE ISSUED	SUPERSEDES ISSUE DATED	PAGE
W. D. PIERSON, JR. MANAGER, MARKETING PLANNING	1-27-55		1



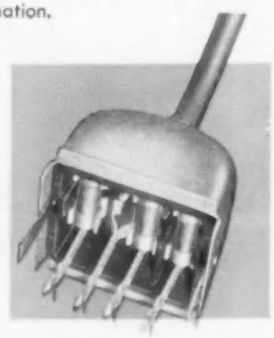
speed plant operations

Recommend **MIDGET SIZE**

FA Power Plugin

Midget FA POWERPLUGIN is available in 100 amp., 250 volt feeder capacity for 2, 3 or 4 conductor solid neutral types for equipment requiring connection for ½ to 3 HP, 250 volt motors or less, AC or DC, with standard type fuses and 7½ HP maximum for motors with dual element fuses.

The 2 and 3 conductor types provide 220 volt single phase or three phase power to motors while the 4 conductor type provides single or three phase power for motors and 120 volts for machine illumination.



You can add substantially to the efficiency, economy and flexibility of operations of all new and modernized plants by urging your customers to install Midget FA POWERPLUGIN — the modern system of power distribution for small equipment — power tools, small machines and motors, return lubricating systems, production benches and machine illumination.

Redesigned to broaden its use through an increase of 66⅔ percent in its capacity and by closer spacing of outlets, Midget FA POWERPLUGIN provides "plug in and go" power for virtually every type of small equipment.

It also affords substantial savings by eliminating long lead-ins with a resultant voltage drop, and makes it possible to move machines in and out of production lines without slowing down or delaying operations.

Midget FA POWERPLUGIN is approved by the Underwriters' Laboratories for label service. It is only 3½ inches wide and 2 inches deep in size and is available in standard 5 and 10 foot lengths with plugin outlets every 12 inches. Additional outlets and special lengths are available on specific order.

Recommend this new and better system of power distribution to all your customers who are interested in maximum efficiency and flexibility of plant operations. Your nearest FA representative, listed in Sweet's, will be glad to assist you in planning installation of Midget FA POWERPLUGIN.

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"POWR-KORD"

HEAVY-DUTY RUBBER EXTENSIONS

CONTENTS OF THIS PACKAGE BEAR THE UL LABEL OF UNDERWRITERS LABORATORIES

NOW AVAILABLE IN

RED

. . . the color protects the cord, makes it stand out against all backgrounds

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IS FULLY UL LISTED

- ROYAL ELECTRIC RED "SJ" CORD
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- BUILT-IN STRAIN RELIEFS
- EASY TO DISPLAY AND SHIP
- COMPLETELY SAFE AND DEPENDABLE

Cat. No.	Length	Cord	Packed	Ship. Cart.	Weight
M-1825	25'	18-2 SJ	1	24	44 lbs.
M-1850	50'	18-2 SJ	1	12	35
M-1625	25'	16-2 SJ	1	24	50
M-1650	50'	16-2 SJ	1	12	44
M-16100	100'	16-2 SJ	1	6	44

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(BULK ORDERS $5.00 PER 100)

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ADEQUATE WIRING—WHAT IT IS—WHY IT'S NEEDED—HOW TO GET IT!

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Here's a booklet that's *really* getting attention! Its first edition of thousands was exhausted three weeks after coming off the press. A big third edition is fast being depleted by new orders and reorders. The response has been truly surprising!

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"The ABC of Home Wiring" was written in close collaboration with the National Adequate Wiring Bureau, representatives of public utilities, and leading electrical contractors. You can be *sure* of the data it contains!

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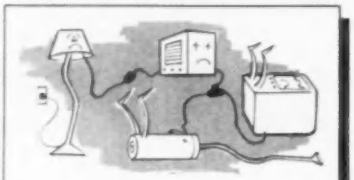
Kennecott offers you this booklet at less than cost. It's part of the national advertising campaign now being sponsored by Kennecott – to the benefit of the entire electrical industry. The first 50 copies are *free of cost to you.* You can order as many more as you need *below cost* . . . only $5.00 per hundred.

Send a supply to your contractors and dealers – for mailings, for giveaways – to spearhead local adequate wiring promotions! For your copies, send the order blank at right.

Has your house outgrown its wires?



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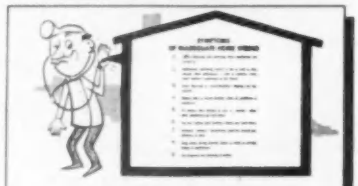

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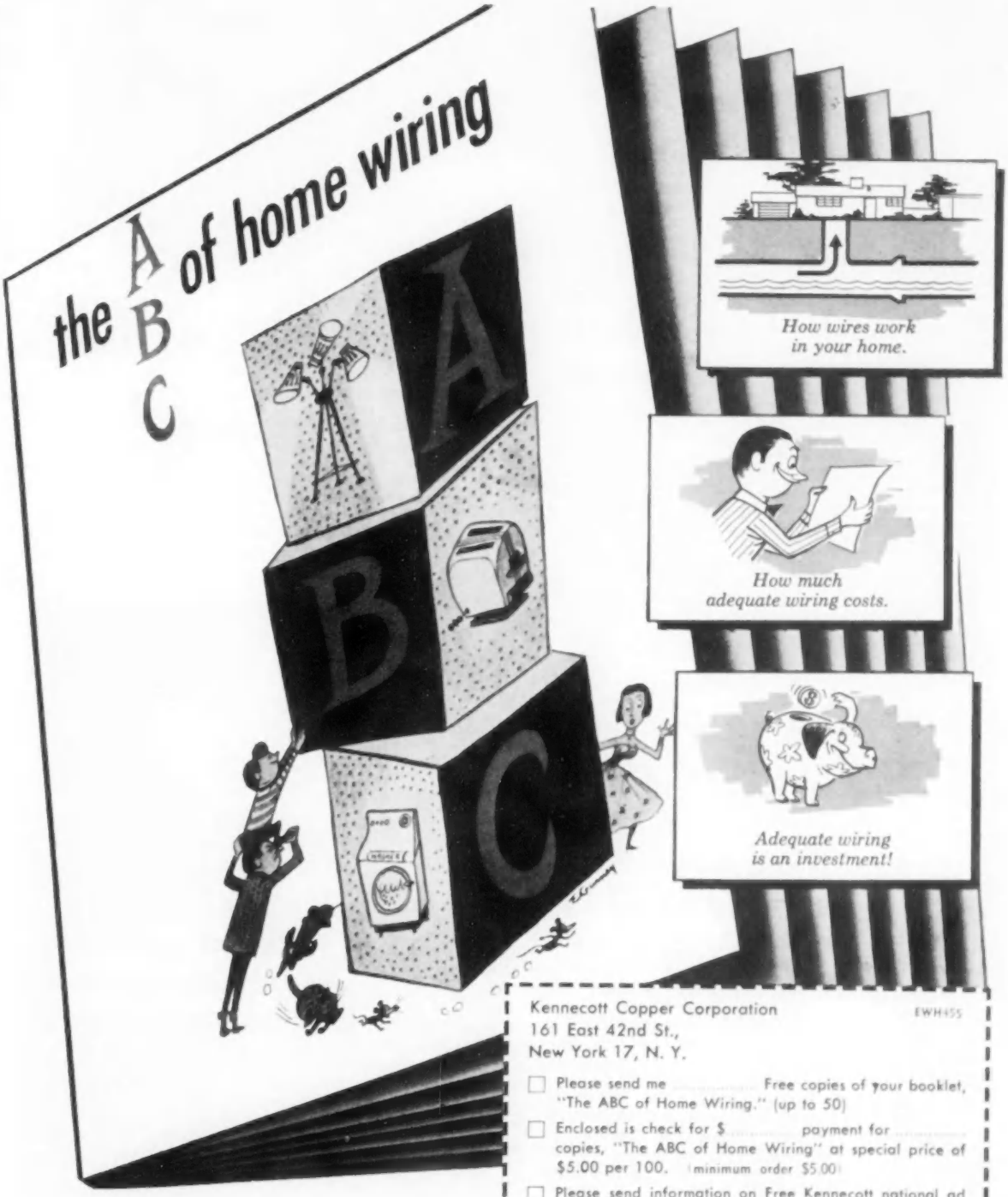
Kennecott Copper Corporation

Fabricating Subsidiaries: CHASE BRASS AND COPPER CO: KENNECOTT WIRE AND CABLE CO.



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No. 4300-PB Phenolic Lampholder

new design

Rugged Too! Defies Replacement

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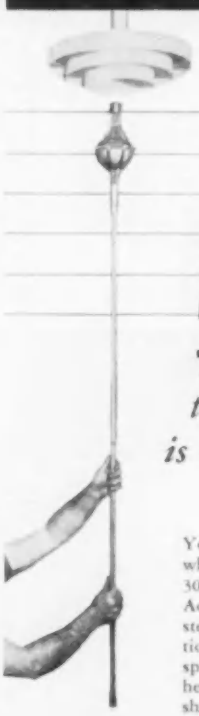
only McGILL makes Levolier® Switches



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THE SAFE WAY

to change lamp bulbs is with McGILL® adaptable lamp changers

You keep your feet on the ground even when you're changing lamp bulbs up to 30 feet above the floor with the McGill Adaptable Lamp Changer. Lightweight steel pole is furnished in 5' insulated sections that lock together securely by spring-actuated buttons. Several style heads available for virtually any size, shape and type of bulb.

No. 5025-SRG

grounded lamp guard

with the N.E.C. Approved grounding arrangement

The #5025-SRG series portables use the 3 wire plug and convenience outlet adopted as standard by Underwriters' and the National Electrical Code — 2 parallel blades with a U shaped third blade for ground. It will outlast several "inexpensive" portables because all component parts are quality built. Heavy steel wire cages, electrically welded and zinc plated with bright chromate finish. Levolier switch and keyless types with or without 16-3 SJ black rubber cord.

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Available through leading Electrical Wholesalers

For complete information on products of the McGill Electrical Division, write today for Catalog No. 49-A.

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GROUNDING DEVICES

Economical prices—ease of installation—trouble-free service . . . all yours with Weaver grounding devices!

GROUND RODS AND CLAMPS

They're designed for each other! RODS are completely copper armored . . . safe from corrosion. Rigid steel core and sharp point make driving easy. The CLAMPS grip firmly . . . hold connections under extreme pressure permanently. Rounded screw point prevents rod damage.

POLE BOTTOM GROUND PLATES

. . . have 25% larger copper area than other commonly used plates. That means: greater conductivity—better overload dispersal. Solderless connector with vibration-proof lock washer assures high pressure contact that stays tight for keeps.

GROUND CLAMPS (UL APPROVED)

Cast in bronze for complete resistance to rust and corrosion. They're easy to use and make permanent ground connections. The only complete line of bronze clamps for ¼" to 4" pipe. Competitively priced.

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LOOK AT THIS CHART...

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The chart shows at a glance how the Amprobe Jr. meets *all* the testing needs of your customer . . . measures both voltage and current while equipment is still in operation! You're doing him a favor when you sell an Amprobe Jr. – the one instrument that does *the whole job.*

And the cost is only $19.85 (just a few dollars more than an ordinary voltage tester).

Just show the Amprobe Jr. . . . . compare it feature for feature with an ordinary voltage tester . . . mention the low price . . . and the sale is closed. Once your customer learns the advantages of a snap-around tester, he'll "graduate" to a "300", "600" or "1200" Amprobe. You can offer him an Amprobe model for every job, every budget: from 10 amps, 250 volts to 1200 amps, 600 volts AC; from $19.85 to $67.50.

PYRAMID INSTRUMENT CORPORATION, LYNBROOK, N. Y. (Export Division: 458 Broadway, New York 14, N. Y.)

Ask yourself these questions	The AMPROBE Junior	Ordinary Voltage Tester
Does it measure current as well as voltage?	YES	NO
Does it give you full visibility on a graduated reading scale?	YES	NO
Does it fit conveniently in your pocket?	YES	YES
Does it measure within ± 3% accuracy?	YES	NO
Does it come in a full line of models to meet different problems?	YES	NO
Does it protect you against shorts and shocks?	YES	YES
Does it balance loads, locate grounds, determine motor overloads, check rating of circuit breakers?	YES	NO

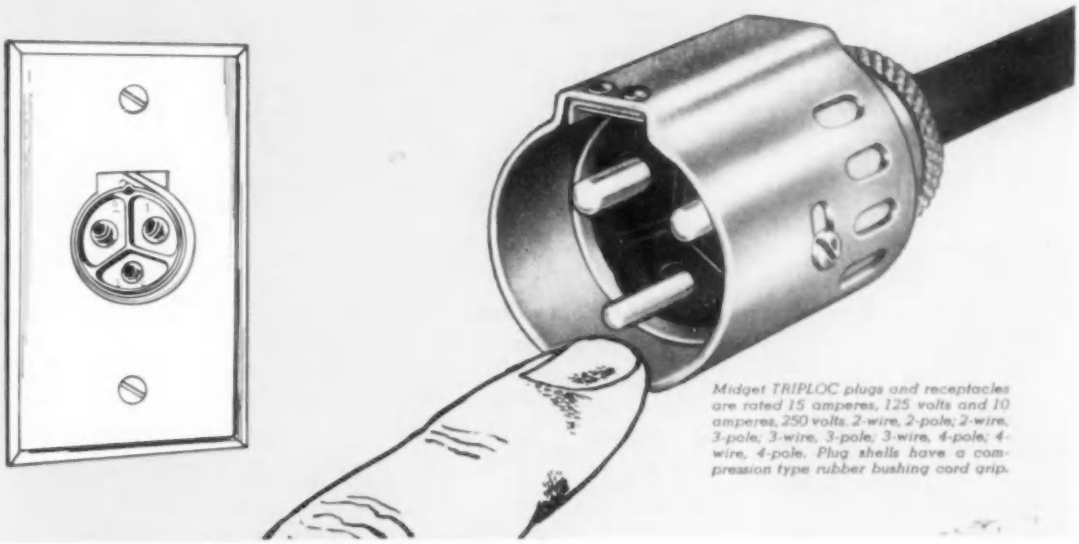
AMPROBE

world's largest manufacturer of snap-around volt-ammeters

now midget TRIPLOC®

PLUGS AND RECEPTACLES

with ROUND PRONGS



Midget TRIPLOC plugs and receptacles are rated 15 amperes, 125 volts and 10 amperes, 250 volts. 2-wire, 2-pole; 2-wire, 3-pole; 3-wire, 3-pole; 3-wire, 4-pole; 4-wire, 4-pole. Plug shells have a compression type rubber bushing cord grip.

Now, because of the completely new design of the contact units, midget TRIPLOC gives even better performance in attaching and detaching portable electrical equipment. Note the following features:

ROUND PRONGS: give positive contact, greater strength and improved mechanical performance.

RAISED INSULATION ARC BARRIERS: increase creepage distances between poles and to ground.

IMPROVED WIRE TERMINALS: for easier wiring and trouble-free performance.

INTERCHANGEABLE CONTACT UNITS: for 5 different circuit needs.

REVERSIBLE CONTACT UNITS: female or male fit in plug shell to make 10 different combinations.

AUTOMATIC SELF-LOCKING: plugs are quickly released by slight twist.

GUARDED CONTACTS: extended housing shell fully protects prongs.

INDIVIDUALLY RENEWABLE PARTS: facilitate maintenance.

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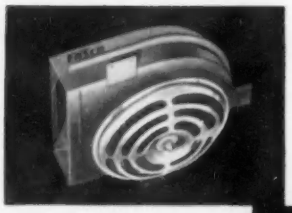
PLUGS AND RECEPTACLES · CIRCUIT CONTROLS · LIGHTING FIXTURES · FLOODLIGHTS

FASCO VENTILATING FANS

No other inexpensive "Extra" gives such push to your new home sales!

Low-Cost Ventilation - Low-Cost Installation

MODELS FOR EVERY NEED · NO SERVICE CALL BACKS FASCO offers a complete line of ventilating fans for every building need . . . in kitchen, bath and utility rooms . . . at prices to fit your building budget. All models guaranteed 5 years! Specify FASCO for *your* new homes.

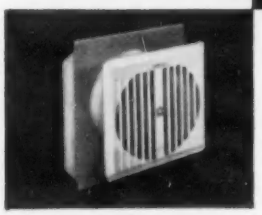


MODELS 728-1021

For inside walls and ceilings. Turbo-Radial Impeller develops greater pressures. 728, 7" Impeller, 325 CFM; 1021, 10" Impeller, 530 CFM.

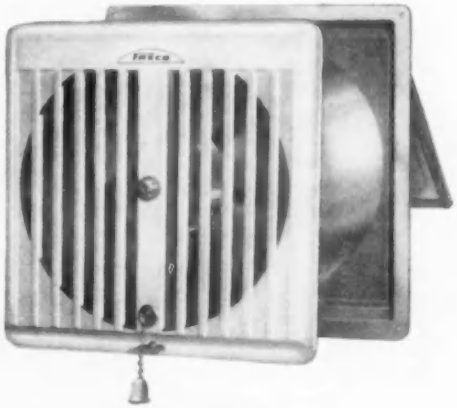
MODEL 880

For single story houses —in ceiling. Simple to install—low in cost—high efficiency. 8" blade, 475 CFM. Also model 1080, 10" blade.



MODELS 882-1082

Automatic wall ventilating fan Switch operated. 882, 8" blade, 375 CFM; 1082, 10" blade, 550 CFM.



MODELS 847–1047
OUTSIDE WALL VENTILATING FAN

A sturdy, efficient, low-cost fan for any home. Automatic pull-chain operation. For outside walls, 4¼" to 15" thick, 847, 8" blade, 475 CFM; 1047, 10" blade, 650 CFM.

Write Today for literature on the FASCO fan line.

ALL THE FEATURES BUILDERS WANT— DESIGNED WITH HOME BUYERS IN MIND

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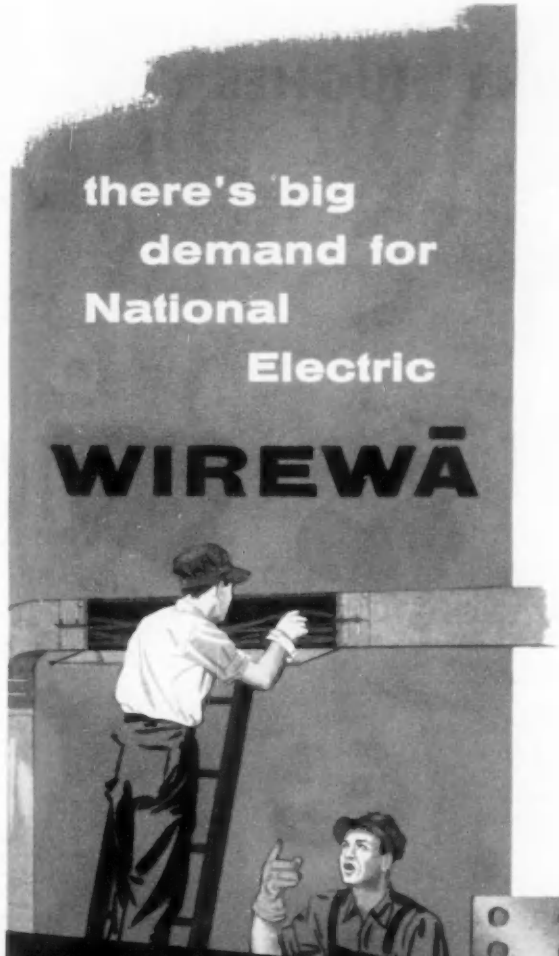

and here's why...

It's an all-purpose raceway that contractors like because...

It goes in fast and economically

1. Hinge-type coupling permits most economic installation . . . flush to wall, in corners, bracketed out or suspended. **2.** Flangeless sections permit speedy assembly. **3.** Multiple knockouts on two sides for convenient branch circuiting. **4.** Hinged covers are designed for quick access at all points.

It's versatile, rugged, attractive in appearance

1. Any wiring combination possible within National Electrical Code. **2.** Splicing within the raceway approved by the National Electrical Code. **3.** Large cross sectional area provides wiring capacity to permit many branch take-offs. **4.** Die formed from rugged 16-gage steel . . . 100% salvable. **5.** Attractive satin grey baked enamel finish also serves as excellent prime coat for over-painting in installations using color dynamics.

1,600 ft. of Wirewā was installed in Westinghouse KDKA-TV, Pittsburgh, Pa.

NE Wirewā is available in both 4" x 4" and 6" x 6" sizes. Investigate the advantages of placing stock orders now!

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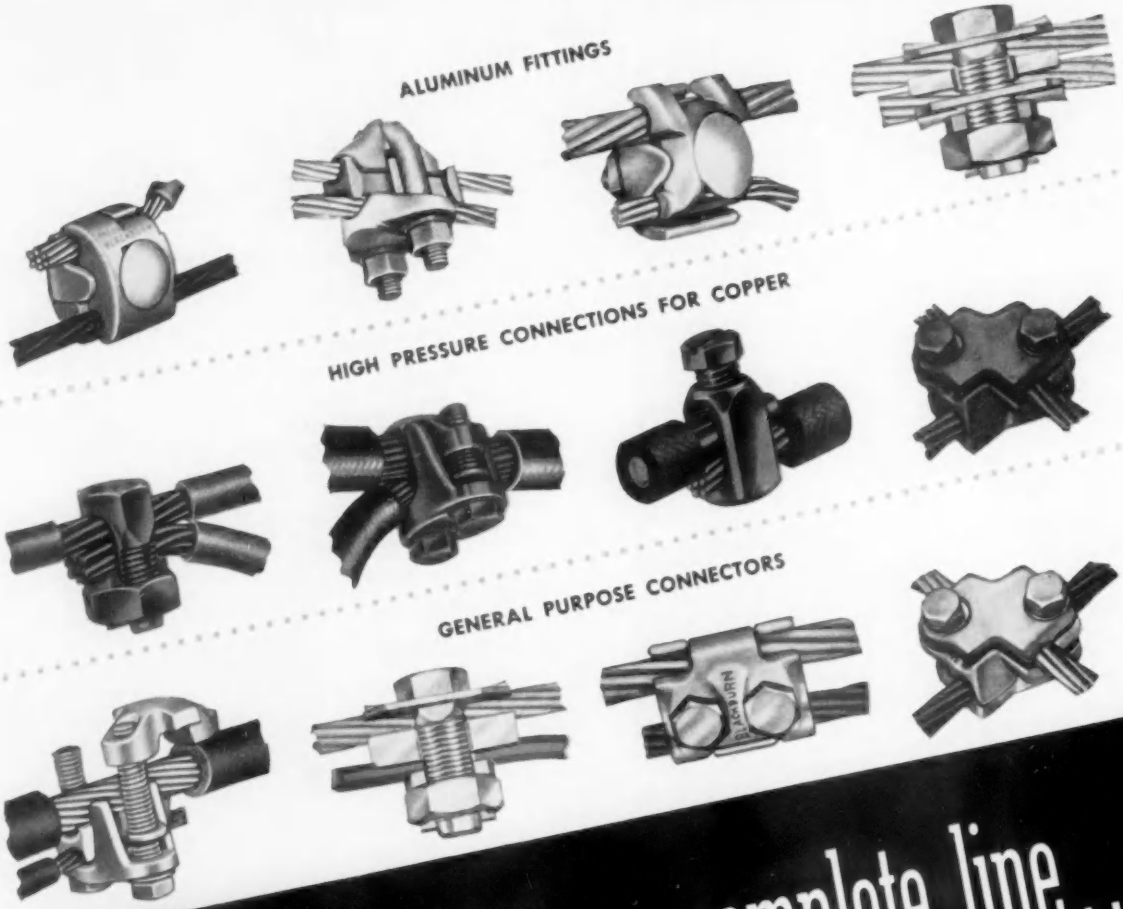
NATIONAL ELECTRIC PRODUCTS CORP. 50th ANNIVERSARY 1905–1955

HARRY HUGHES Says...



BLACKBURN —a complete line...

BLACKBURN *Electrical* **EQUIPMENT**

FAST DEPENDABLE SERVICE FROM OUR CENTRALLY LOCATED FACTORY

JASPER BLACKBURN CORPORATION

"Blackburn doesn't compete against their distributors"

MEMO FROM: Harry Hughes

TO: Ken Way

SUBJECT: Your Distributor Policy

Ken: If I may add my two bits to Red Salmon's letter that appeared in February Wholesaling, I would like to compliment you on your distributor policy. The fact that Blackburn doesn't compete against their distributors, but rather channels the business through their distributors, is a good selling point for any company.

There is nothing more irritating than to find that you have lost an order because you were competing with the manufacturer, or to learn that a manufacturer -- one of your own suppliers -- has sold an order directly right at your own back door. Blackburn's policy of always referring the customer means more money in our pocket -- and that's why we're in business.

Thanks.

Harry Hughes

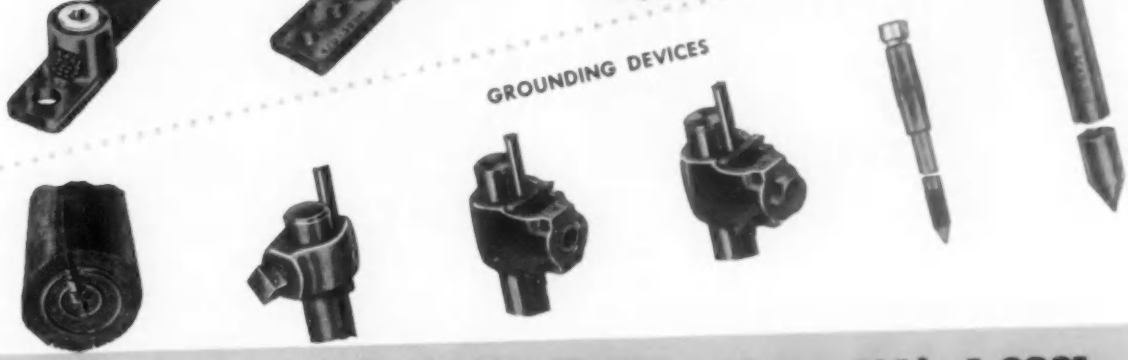
Hughes SUPPLY INC.

HARRY HUGHES,
Vice President
Hughes Supply,
Incorporated
Orlando, Florida

designed with the distributor in mind

TERMINAL LUGS AND SPLICERS

GROUNDING DEVICES



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Mount just one box and the complete service entrance system is neatly installed.

New G-E 12 circuit load center has 100 ampere main breaker wired right in. It accommodates 12 single-pole or 6 double-pole circuit breakers or any combination of both. U L listed.

Installation is compact and simple with the new G-E 12 circuit load centers, Catalog Number TRM 1210F (flush mounting) and TRM1210S (surface mounting). This is your answer for good looks and better workmanship.

Fronts with doors are standard equipment. Locks are optional.

New G-E combination load center with 100 amp main breaker eliminates separate disconnect, gives you 7 quality extras.

You get all 7 quality extras at no extra cost

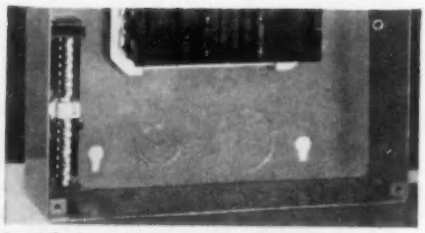
Automatic 2-way alignment. Spring mounted interior assures alignment of breakers with cover and cover with plaster in flush mounting. No screws to adjust.

Silver plated copper for current-carrying parts insures cool, efficient operation for long life.

Bonderite* treated. Bonderizing bonds paint to steel . . . the surface is rust-resistant and satin-smooth. A G-E exclusive!

Full-length door with provision for optional lock kit is standard equipment. Another G-E exclusive!

Excellent appearance made possible by quality construction and finish.



Straight-in wiring on all connections. Insert, tighten screw; no looping. Grips like a bear trap.

Snap-in installation. Plenty of working room! Interior snaps in spring mounting . . . no screws.

*Parker Rust Proof Co.

For more information see your G-E Trumbull distributor or write General Electric Company, Trumbull Components Department, 49-63 Woodford Avenue, Plainville, Connecticut

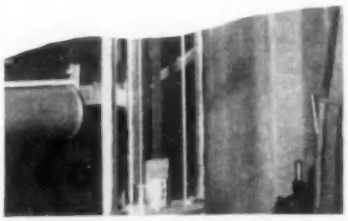
GENERAL ELECTRIC

55 POUND TEST

MR. WHOLESALER—
HERE'S HOW ACCURATE IS HELPING YOU SELL MORE TAPE TO MORE CONTRACTORS AND INDUSTRIAL PLANTS.
USE THE COUPON BELOW AND GET THE WHOLE STORY WE'RE TELLING YOUR CUSTOMERS.

One of a series appearing in Qualified Contractor, Electrical Const. & Maint., Contractors' Electrical Equip., Electrical Equipment, Electrical South.

...ape that ...d found right . . . as carefully tested against the job it has to do as the finest fishing line.



ACCURATE Friction Tape being tested for break resistance. The result: a strength rating of 55 pounds.

International Testing Laboratories Inc. has thoroughly tested all **ACCURATE TAPES** for strength, proper adhesion and cohesion, resistance to abrasion, dielectric strength, resistance to temperature extremes and many others. **The report can make profitable reading for you** . . . send the coupon today, no obligation of course.

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Please send me, without obligation, the report made by International Testing Laboratories.

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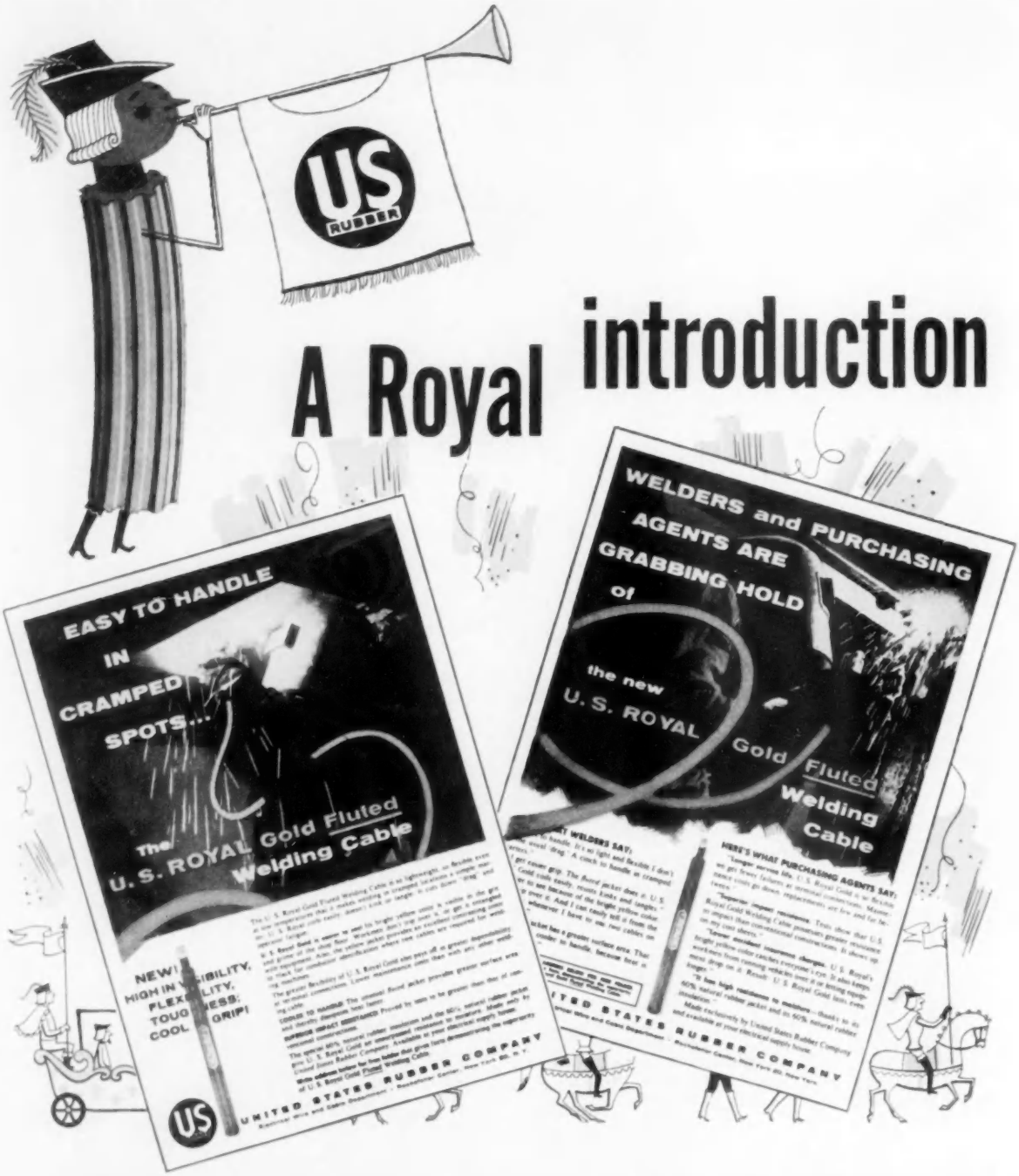
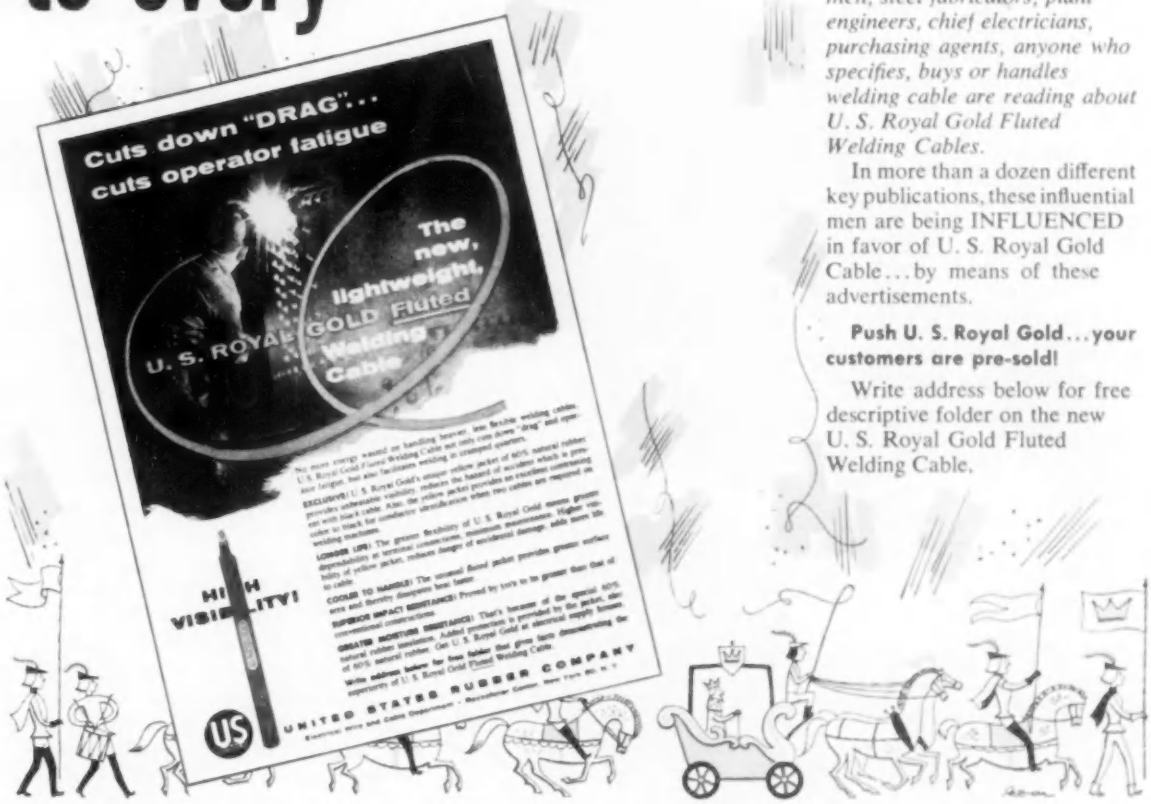


US for the New U. S. Royal

UNITED STATES

ELECTRICAL WIRE AND CABLE DEPARTMENT

to every market...



Advertising campaigns are telling the story of the finest welding cable ever made!

Every user of welding cable will know about the new U. S. Royal Gold Fluted Cable.

When this latest development of "U. S." chemists and engineers was perfected and tried out in the field—its superiority to every other cable on the market was readily apparent. Its ready acceptance was inevitable.

WE ARE TELLING THESE FACTS TO EVERY POSSIBLE MARKET.

That's why, today, industrial production and maintenance men, steel fabricators, plant engineers, chief electricians, purchasing agents, anyone who specifies, buys or handles welding cable are reading about U. S. Royal Gold Fluted Welding Cables.

In more than a dozen different key publications, these influential men are being INFLUENCED in favor of U. S. Royal Gold Cable... by means of these advertisements.

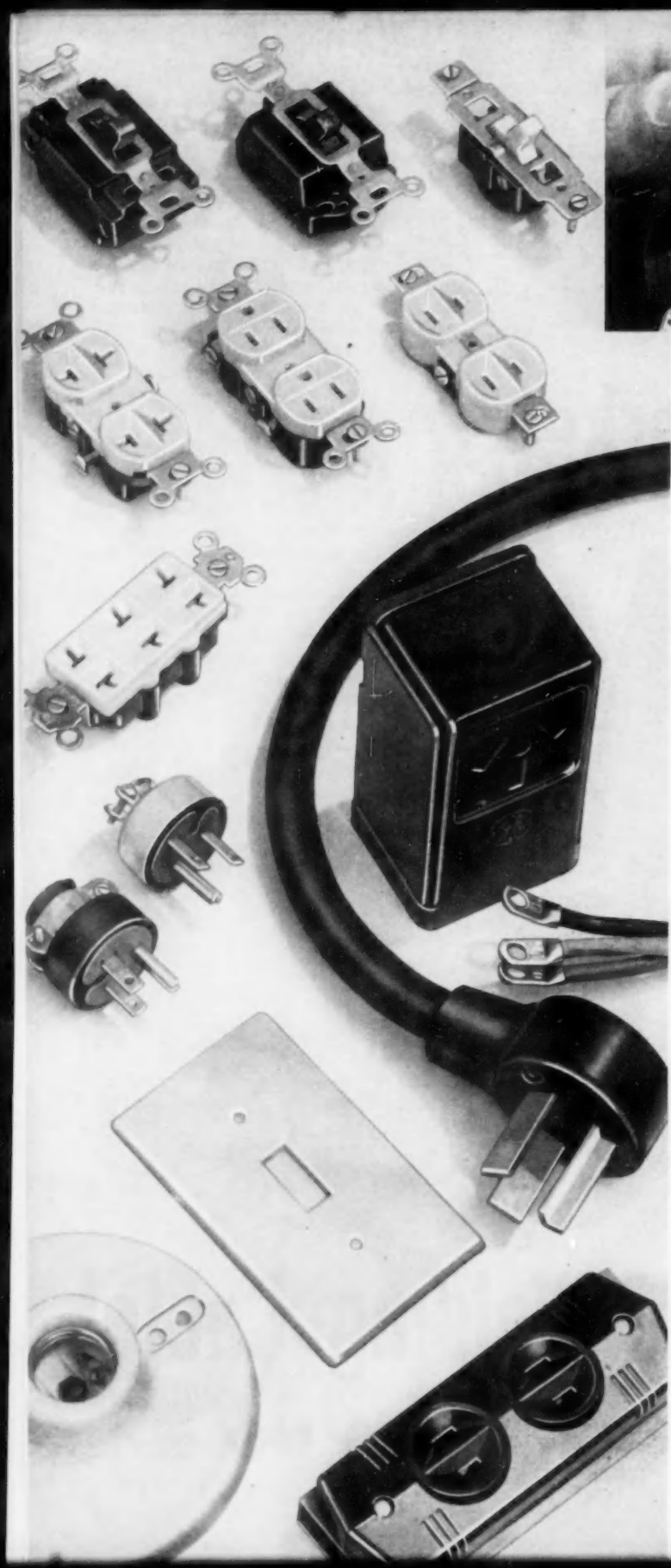
Push U. S. Royal Gold... your customers are pre-sold!

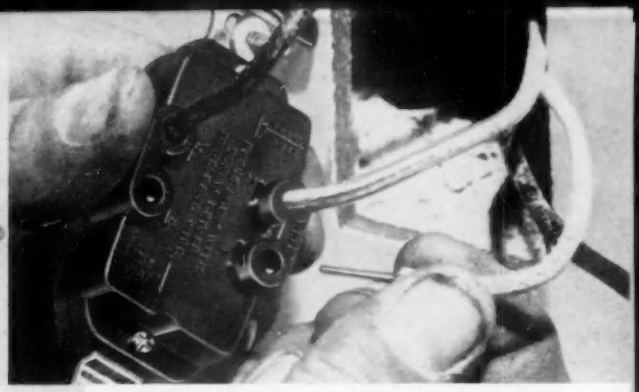
Write address below for free descriptive folder on the new U. S. Royal Gold Fluted Welding Cable.

Gold FLUTED Welding Cable!

RUBBER COMPANY

ROCKEFELLER CENTER, NEW YORK 20, N. Y.





G-E PRESSURE-LOCK TERMINALS make wiring easy, eliminate binding screws. Wire is merely stripped and pushed into terminal for firm, dependable pressure connection. Available in a complete line of outlets, switches, and lampholders.

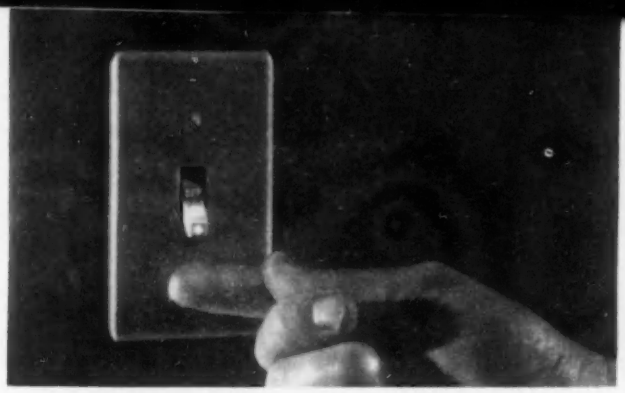
For breadth of line,

LOOK

With the newly expanded General Electric line of wiring devices you can handle any wiring job. Look over this line of switches, outlets, lampholders, plates, and special purpose devices. You'll find a wide assortment in a broad range of grades, from the finest specification and heavy duty grades to the low cost competitive grades. Here's everything needed for commercial and industrial jobs; for residential and rural jobs.

During 1954 alone the line grew by the development and introduction of 102 new products, and the redesign and improvement of 47 additional items. A completely new double outlet line was developed — smart looking in appearance, sturdy in design, and offering exclusive features. Other developments included a new line of grounding outlets and caps, an AC switch line, higher-rated mercury switches, several new remote control components, improved range outlets and cords, and a new line of dryer outlets and cords.

Yes, you can look to General Electric for more new developments in 1955 . . . wiring devices that not only answer the electrical contractor's needs, but can be depended on for extra service and long life.



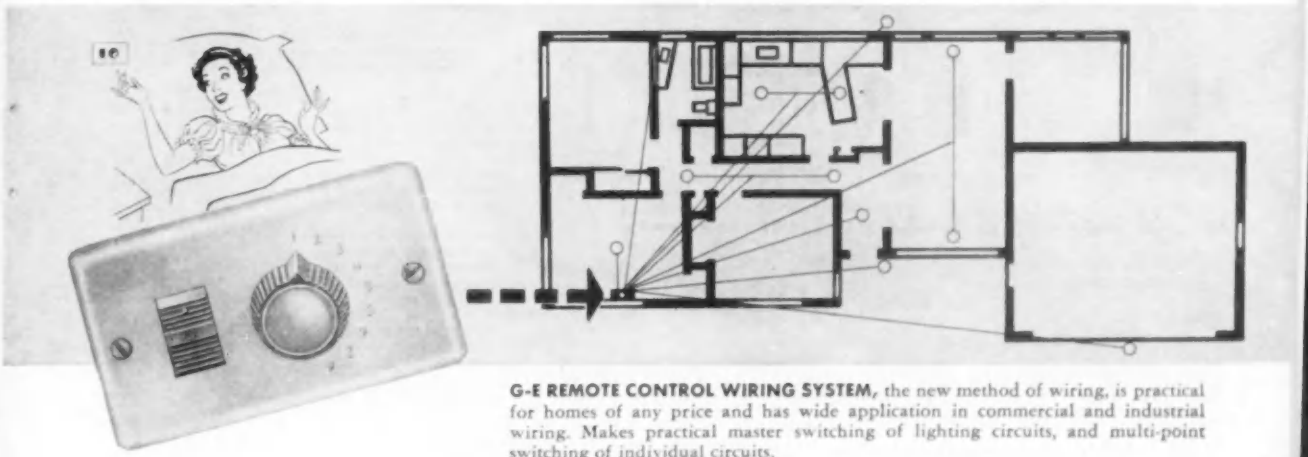
NEW G-E MERCURY SWITCH has a handle lighted by a tiny neon lamp. Handle lights when switch is in OFF position. Will give years of service. Locates switch in dark and serves as a pilot light.

G-E WATCH DOG STARTERS provide automatic lockout of failing lamps, protect ballast and fixture wiring, and eliminate blinking—outlast ordinary starters up to ten to one.

product developments, and quality...

TO GENERAL ELECTRIC

Extensive as the G-E wiring device line is, General Electric is constantly developing new products and new ideas. Some improvements are designed to save installation time and make wiring easy: like self-tapping, plaster-cleaning screws (now standard on all switches and outlets) held in position for quick mounting by fiber washers. Some G-E developments improve the wiring system: with remote control, the convenience of multi-point and master switching is offered along with the safety of low voltage. Always, General Electric developments serve the contractor and his customers dependably and at low cost. Wiring Device Department, General Electric Company, Providence 7, Rhode Island.



G-E REMOTE CONTROL WIRING SYSTEM, the new method of wiring, is practical for homes of any price and has wide application in commercial and industrial wiring. Makes practical master switching of lighting circuits, and multi-point switching of individual circuits.

Progress Is Our Most Important Product

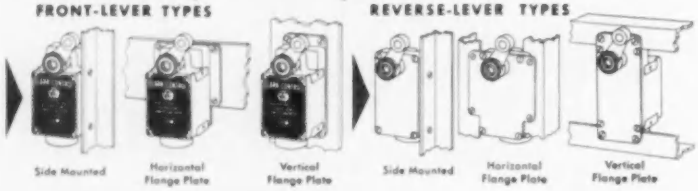
GENERAL ELECTRIC

NEW!

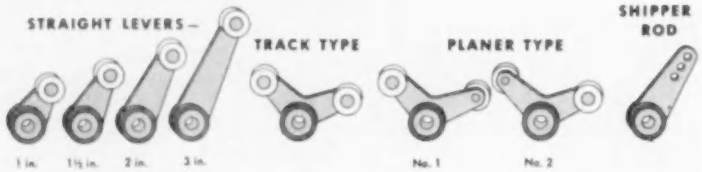
CLARK *Type DM* MACHINE LIMIT SWITCH

• This new heavy-duty limit switch is built with a minimum of moving parts, and with emphasis on simplicity of construction. The primary objective in its design is to provide dependable, accurate, trouble-free operation for a long life. All latch and trip-bearing surfaces are nylon to steel for minimum wear. All springs are in compression for greatest safety—they cannot be overloaded. This and other features make the switch as nearly fail-safe as possible.

Mounting Arrangements



Operating Levers



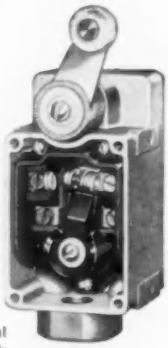
Nylon roller cushions impact, has low friction coefficient and long wearing qualities.

Reversible operating lever. Simple screw driver adjustment for reversing or positioning.

Heavy molded insulating chamber surrounds all live parts and provides ample wiring space for four No. 12 wires with Stakon connectors.

Areas subjected to arcing are protected by glass-melamine plates.

Electrical and mechanical sides of switch are completely isolated.



Nema Type 5 dust-tight, oil-tight enclosure of heavy die-cast construction.

Double-concentric overtravel springs in compression for fail-safe operation.

Return spring is in compression. Can be changed without tools to either side of arm, or removed for maintained contact.

Spring-loaded latches are nylon for low friction and long life.

Choice of ½" or ¾" conduit opening.

Write for Bulletin 102DM

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New York City's new 12-million-dollar Department of Marine and Aviation Pier 57 is one of the most modern in the world—and so is its wiring system.

A unique feature of the system is a cable with submarine-type insulation, installed aerially without physical protection of any kind. This installation offers most of the advantages of a conduit system at a far lower cost. The cable can withstand varying temperatures estimated from minus 10 degrees Fahrenheit to 130 degrees Fahrenheit and humidity up to 100%.

This cable was designed and tested to meet the special requirements of the Dept. of Marine and Aviation, City of New York, including U. S. Coast Guard specifications for submarine-type cable.

All of the wire and cable for the pier was supplied by Phelps Dodge.

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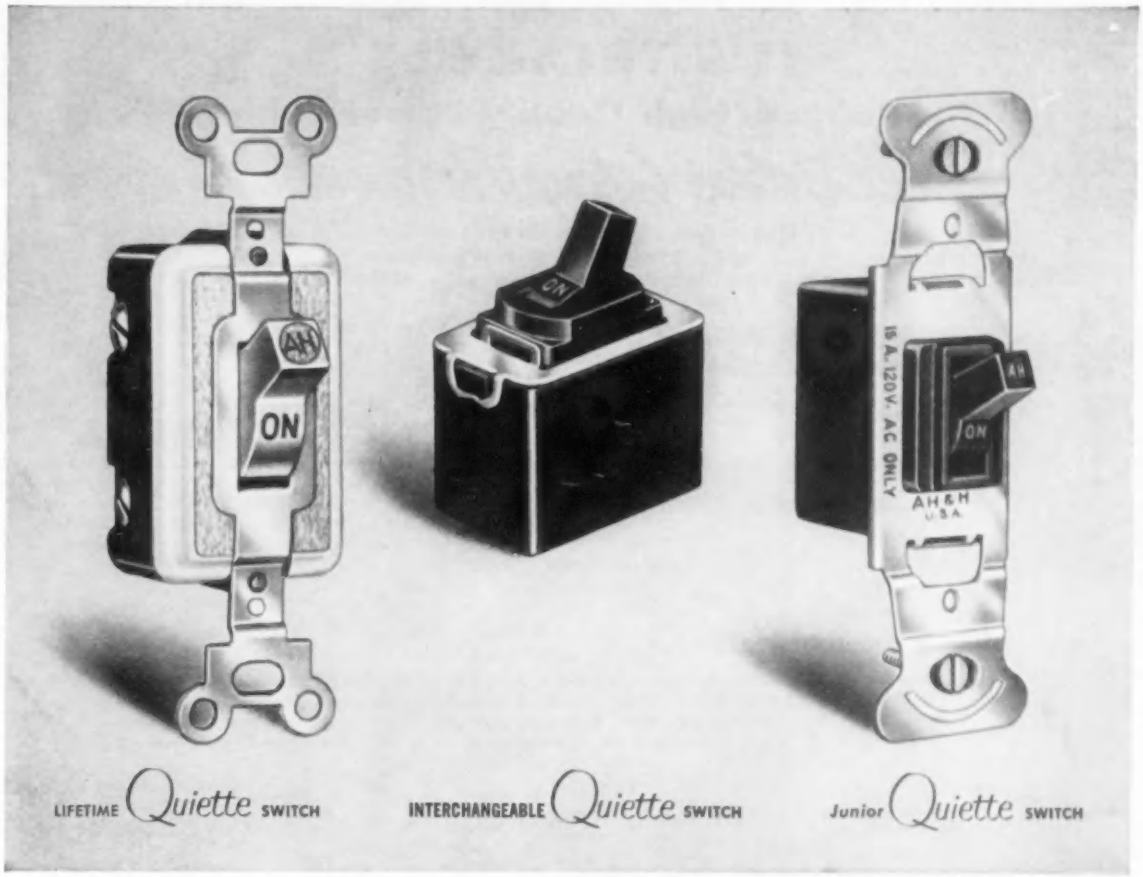

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A-H QUIETTE Switches offer quiet operation, without mercury — for both incandescent or fluorescent lights and appliances. Available in single and double pole, 3- and 4-way. Listed as standard by Underwriters' Laboratories.

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For Rugged, High Quality Power Cables—

All the Way Through!

Don't judge a power cable by its cover alone. If you want *reliability* in high voltage cables, check the complete construction of Triangle Power Cables. You'll find that every protective layer is made of quality materials that give you extra protection, *extra* benefits.

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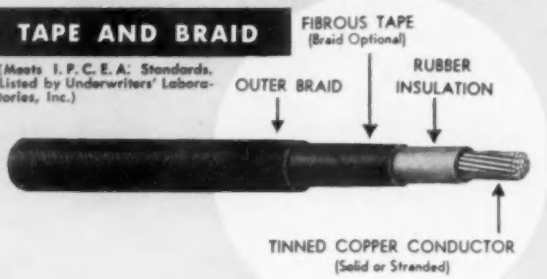
(Meets I. P. C. E. A. Standards. Listed by Underwriters' Laboratories, Inc.)

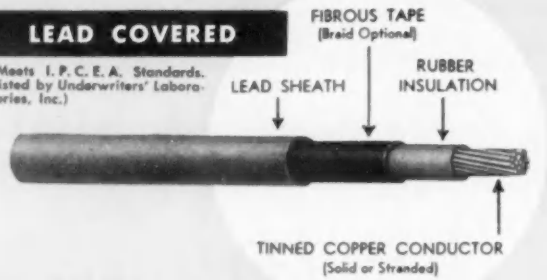


The braid covering on this Power Cable is made from high quality, long staple cotton or glass filament "GLAZON" braid or a combination of both, depending on the size. Underneath this tough braid is a layer of fibrous tape which is substantially as thick as the outer braid itself. This tape is a strong fabric, thoroughly impregnated with a rubber compound.

The insulation on these two cables is Triangle's famous "Adaptal" (Type RH-RW) insulation. This insulation is a high grade rubber, expertly vulcanized. Repeated tests prove that this insulation is far superior to normal insulation in its moisture resistance, heat resistance and long life. It is approved by Underwriters' for service either in wet locations at 60°C or dry locations at 75°C and exceeds Underwriters' specifications for either RH or RW.

LEAD COVERED

(Meets I. P. C. E. A. Standards. Listed by Underwriters' Laboratories, Inc.)



Where excessive moisture is expected to be encountered, specify Triangle Power Cable with the lead sheath. It affords extra protection against moisture, corrosion and mechanical damage.

OZONE RESISTANT

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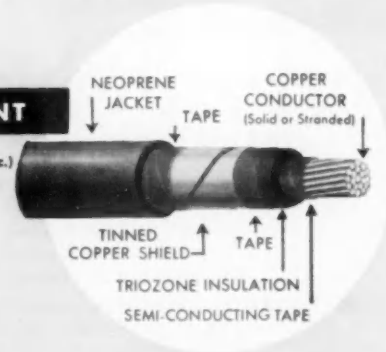

Here's the absolute tops in Power Cables. Where high voltages raise the possibility of destructive ozone, Triangle's "Triozone" cable is the answer.

Triozone insulation is a butyl-rubber base insulation that defies ozone and protects the outer neoprene cover.

In many cases a semi-conducting tape is applied over the stranded conductors for further protection.

A tough fabric tape is applied over the ozone-resistant insulation. When required, a tinned copper shield is applied. On top of this is more tape. Then—a special neoprene jacket that is resistant to oil, heat, sunlight, flame and corrosive chemicals.

OTHER POWER CABLES produced at Triangle include — Control Cable — V. C. Interlocked Armor Cable — Parkway Cable — Varnished Cambric — and many others.

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GRATELITE is to form what verse is to prose: A more harmonious, inspiring vehicle of thought . . . which creates a mood, an atmosphere of warmth and richness.

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GRATELITE—truly a creative work of art—a distinctive, functional design which blends with its surroundings—different from anything which has before been brought to life.

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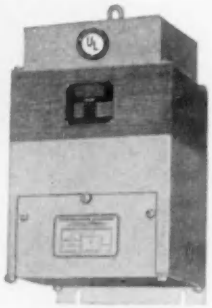
TRUSTED name in lighting since 1902

What they say...

about SORGEL air-cooled dry-type transformers



7½ Kva single phase

"The unique arrangement for entering conduits and roomy connection compartment saved us money."

"We needed a quiet transformer, so we selected SORGEL."

"We like the way the 50 Kva is equipped with wall brackets. With another make we had to make special brackets at extra expense."

"When we turned on the current we were amazed at how quiet it was."

"The solderless terminals save money."

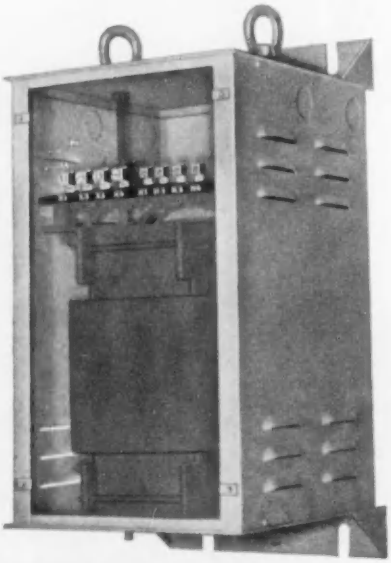
"Upon checking the reason for the circuit breaker going out frequently, we found that the transformer was carrying overloads up to 25% at times, and showed no signs of over-heating."

"It gets the job done where others do not."

"With the 'Underwriters' label on SORGEL transformers, there is no question from inspectors."

"We have enjoyed nice sales on this transformer — for one reason — QUALITY."

— and many more praises and compliments from appreciative customers. You, too, will be well repaid by investigating the reasons for the ever-increasing preference for SORGEL transformers.



50 Kva wall mounting transformer, with front panel removed, showing roomy connection compartment and solderless terminals.

Complete Line

¼ Kva to 2500 Kva single phase.

1 Kva to 3000 Kva 3-phase, 2-phase, and phase changing.

All standard voltages, such as 120, 208, 240, 480, 600, 2400, 4160, 4800, 7200, 13,200, and up to 15,000 volts, and any intermediate or special lower voltage.

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Also Special Transformers and Saturable Reactors

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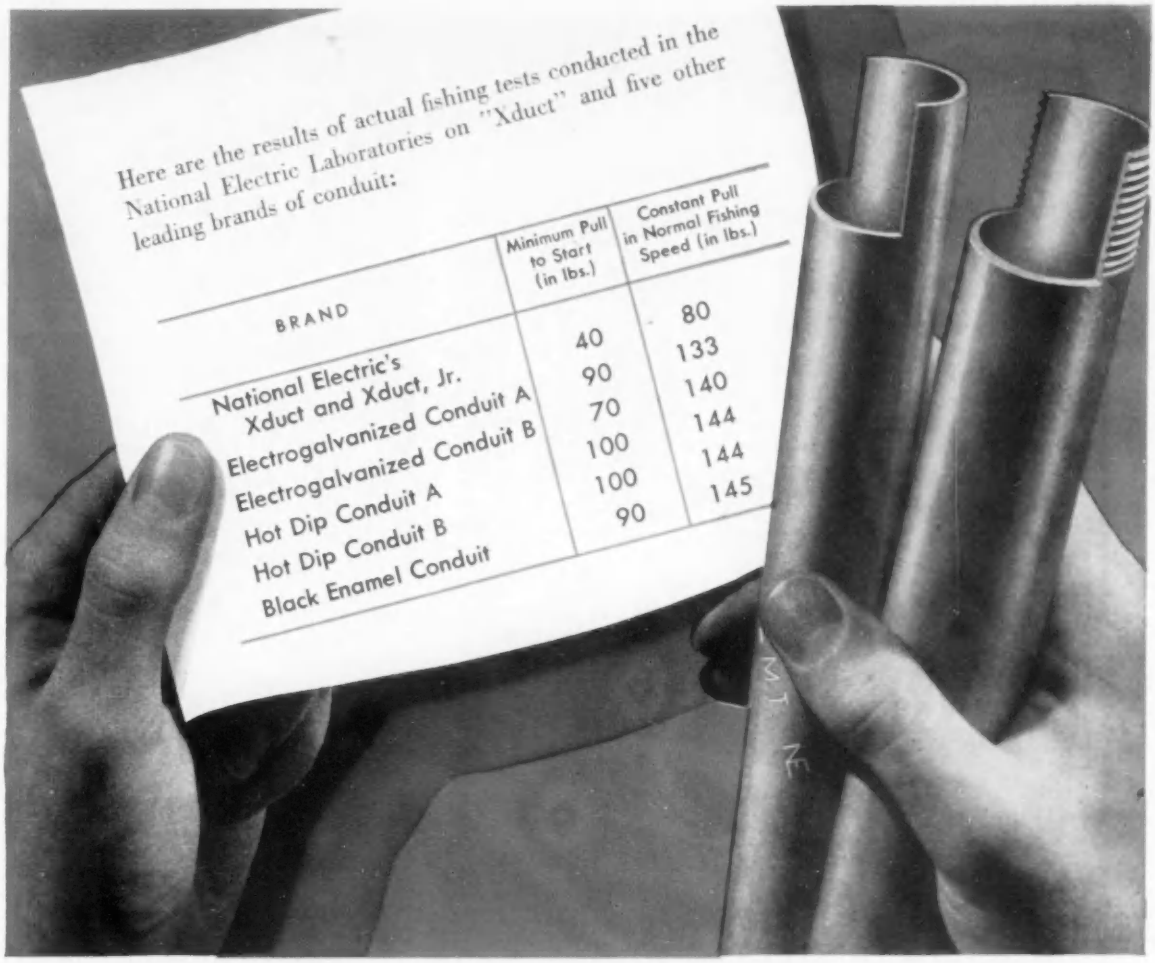

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It's the new Aluminum Enamel that does it! This specially developed inside coating reduces friction between the conduit wall and the moving wires, making it possible to fish the wires through Xduct Conduit faster and with less effort.

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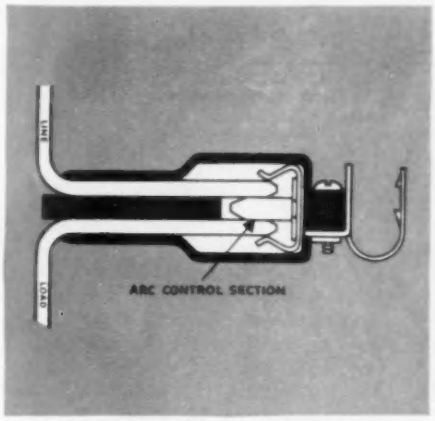
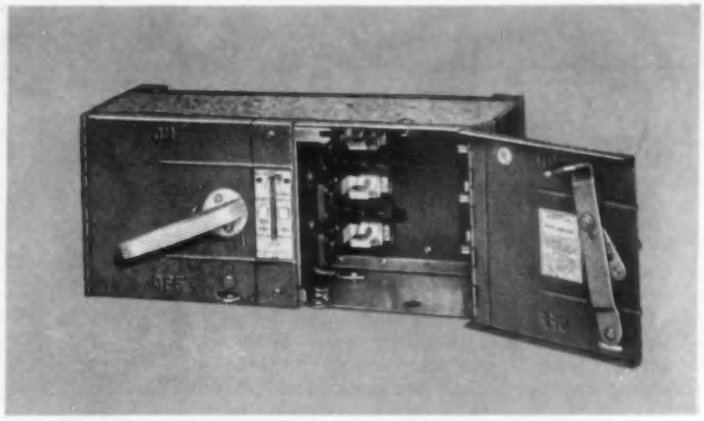


VACU-BREAK SWITCH UNITS SMOTHER ARCS before they can burn or pit contacts. Maintenance is eliminated.



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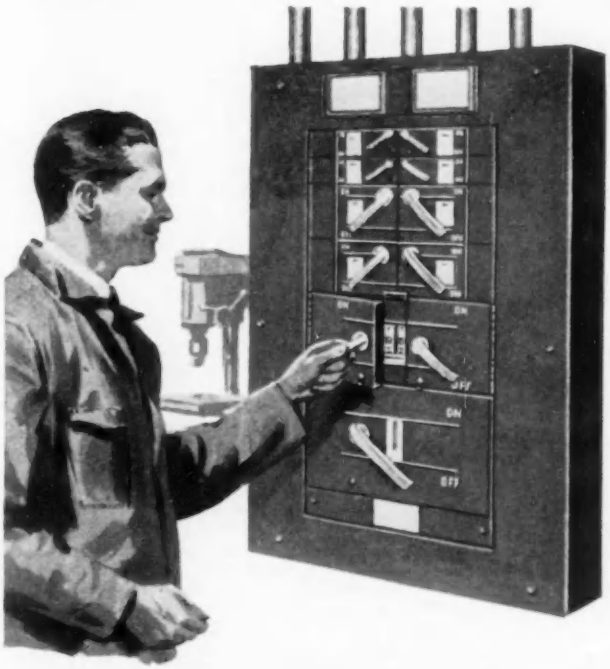

BULLDOG VACU-BREAK POWER PANELS ARE

BullDog-Engineered

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Factory-tested to assure utmost operational efficiency. *Prefabricated* for trouble-free assembly and maximum performance! *Quality-built* under rigid control standards! This triple-value combination is reason enough to recommend and sell BullDog Vacu-Break® Panelboards.

But look at these other modern Power Panel features, too: Exclusive Type "A" Vacu-Break switch units that snuff out arcs, *eliminate maintenance*. Attractive, streamlined cabinets with standardized, horsepower-rated, interchangeable switch units having individual, interlocked doors provide maximum safety. All this . . . plus a low price and easier installation . . . make BullDog Vacu-Break Panelboards the first choice among Power Panels.

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Homebuilders Overproducing?

Bankers, economists, businessmen air bright and dim views. Some housing experts feel backlog caught up, construction should level off at a lower rate. February a record month.

NEW YORK, N. Y.—Today approximately 56 per cent of American families own their own homes or are buying them. But many experts in various fields are concerned. The reason is the soaring mortgage debt and a decline in the number of family formations.

The construction field, of which the residential homebuilding industry is a major part, is basic to the nation's economy and has been watched carefully for any signs of slackening off. But rather than slackening off, housing starts totaled 90,000 in February, a 20 per cent rise over February, 1954, a new record for the month.

Housing starts usually increase by 6 per cent or more between January and February, according to the U.S. Department of Labor's Bureau of Labor Statistics. The total starts for the two-month period were higher this year than last, in both metropolitan and the non-metropolitan sections of the country.

• **Too-Liberal Terms** — Spokesmen for banking and insurance interests are sounding more frequent warnings in regard to too-liberal mortgages (EW—Feb. '54, p. 110). Some influential lenders are already tightening their terms, which may slow the pace of new home sales.

Personal income after taxes in 1954 increased about 1.4 per cent. Mortgage debt, however, rose nearly 14 per cent on one-to-four family homes. H. J. Livingston, president of the American Bankers Assn., and of the First National Bank of Chicago, reported to the savings and mortgage division of the association, that only in depression years has mortgage debt been so high in relation to income. These factors "were causing some concern in the present housing boom."

Banks and insurance firms are avoiding deals where no money is put down and the terms include lengthy time periods. This would slow up the housebuilding industry, but to what degree, no one as yet can say.

The country will not face a housing slump as long as the economy is prosperous "as it apparently will remain," a construction economist maintains. But even while saying this, G. C. Smith, economist for the F. E. Dodge Corp., construction news and marketing specialists, doubts there will be a bust, but he does expect the housing building pace "to taper off later this year, but not to a disastrous degree." This is as far as anyone will predict.

• **Local Gluts**—"There may be period and places where housing will remain unoccupied longer than builders or owners would like, but in general and over the long run, the demand for housing in this country will remain strong," says Mr. Smith.

Why tightening of mortgage terms? Roy Reierson, vice president of New York's Bankers Trust Co., was reported to have hinted in the Wall Street Journal "that part of the answer is the simple economic fact that demand is beginning to outrun supply. Lenders no longer need to push so hard to keep their funds busy."

New net household formation is now at an ebb, reflecting the low birth rate of the depression years of some 20 years ago. A tremendous upsurge is looked for by 1961, when the crop of babies born after the end of World War II reaches the time-tested, family formation age.

The economist, though, exclaims, "During the coming five-year period, I would expect housing demand to be sustained, not at 1,500,000 units a year, but certainly well over 1,000,000 units annually."

• **Wide-spread Effects**—The housing boom naturally has had its effects on practically all phases of industry. Land prices have gone up along with the building boom. In some areas, such as outside Los Angeles, suburban tracts have doubled in cost in the last two years, while around Chicago, the price of land has risen, but not so sensationally.

Herbert Abraham, chairman of Ruberoid Co., the nation's leading producer of asphalt roofing, declares, "over production of homes has already begun to show up in quite a few localities and it won't be too long before it begins to show up in quite a few more." . . . Favorable factors included a record national income with a high rate of spending, the Housing Act of 1954 which liberalized mortgage terms, and a general high rate of building activity.

• **Savings and Loan**—J. Howard Edgerton, president of the United States Savings and Loan League, and president of the California Federal Savings and Loan Association, recently warned the league's 4,200 membership on the use of "ultra liberal mortgage terms."

The associations are said to be the nation's largest single source of mortgage money. Mr. Edgerton expressed his views at a three-day meeting held in March in New York. About 600 savings and loan executives attended.

Government was cautioned in regard to "injudicious" use of super-liberal mortgage terms to stimulate residential building at a time when the market was already booming. It was stated that many housing experts feel the backlog has been caught up and a lower than 1,300,000 unit-a-year rate may not be necessary.

Tighter V. A. rules are urged by V. R. Steffensen, senior vice president of First Security Bank of Utah. "No down payment and 30-year mortgages have been a boom to builders, not to veterans." A down payment of at least 5 per cent and a maximum maturity of 25 years should be considered by Congress. "It would slow down the construction boom in housing, which has been detrimental, both to the housing industry and the economy as a whole."

• **F. H. A. Regulations**—Present F.H.A. regulations require a 5 per cent down payment on all but the lowest cost houses. Any action would thus limit F.H.A. mortgage loans to 90 per cent.

Title 1 of the National Housing Act (of 1954) authorizes the F.H.A. to insure financial institutions against the loss on loans made to finance alterations, repairs and improvements on existing structures—and to finance the building of small new structures for non-residential use. The loans are made by private lending institutions to borrowers with satisfactory incomes and credit ratings. The borrower must own the property, or have a lease expiring not less than six months beyond the maturity of the loan, or by purchasing the property on contract.

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MORE DEPENDABLE PROTECTION BETTER LIGHT EASIER MAINTENANCE

1. *Standardized Splice Boxes*, pendant, ceiling and bracket, to take all fixtures from 100 to 500-watt. Die-cast aluminum.
2. *Large Inspection Cap*, for easy splicing, inspection.
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4. *Auxiliary Reflector*, anodized aluminum, easily removed for cleaning. Increases light efficiency.
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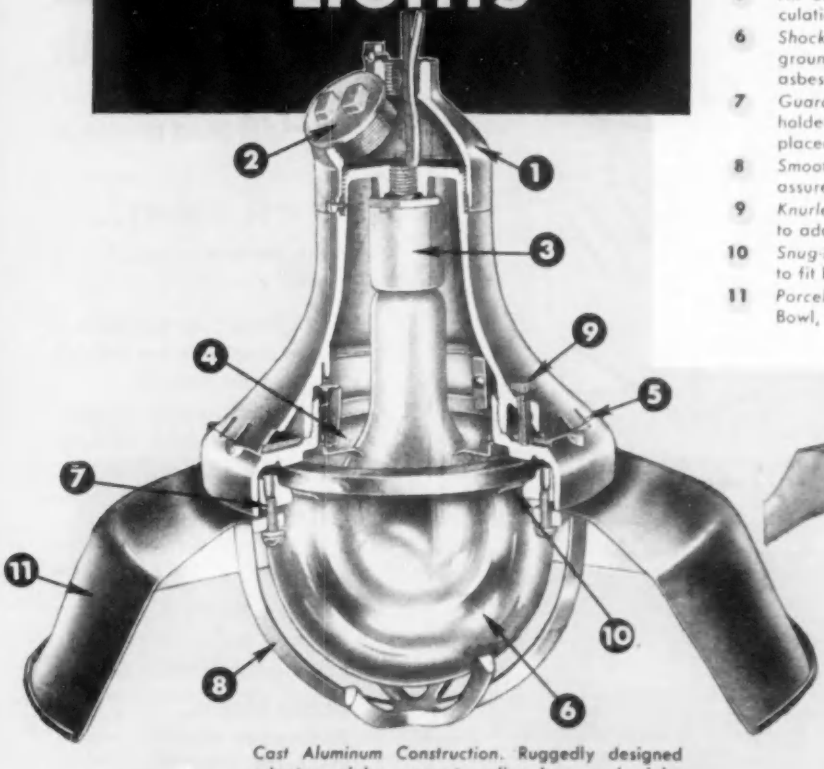
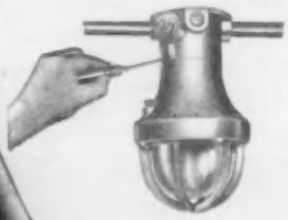
6. *Shock-Proof Globe*, annealed glass, accurately ground mounting surface. Thin aluminum and asbestos gaskets included.
7. *Guards and Reflectors* fasten to die-cast globe holder ring by four screws. Easily installed or replaced.
8. *Smooth, Aluminum Guards*. Made with steel dies to assure smooth uniformity.
9. *Knurled Locking Thumb Screw* locks globe support to adapter
10. *Snug-Fitting Gaskets*. Asbestos and thin aluminum, to fit between globe and holder ring.
11. *Porcelain Enameled Reflectors*. Four styles. Shallow Bowl, Standard Dome, Deep and Angle.



Cast Aluminum Construction. Ruggedly designed adapter, globe support, splice box, and globe guard.



WATTAGE QUICKLY CHANGED ON THE SPOT

Change from 100-watt to 150 or 200-watt medium base, or 300 and 500-watt mogul base . . . simply loosen one locking screw, disconnect wires, remove adapter and replace with new size.

EASY TO RELAMP WITHOUT TOOLS

1. Loosen thumb screw, remove globe support assembly.
2. Change lamp.
3. Replace globe support assembly, tighten thumb screw.

WRITE for new illustrated literature.

KILLARK ST. LOUIS

Killark

"Killark . . . a fitting name to remember"

ELECTRIC MANUFACTURING COMPANY

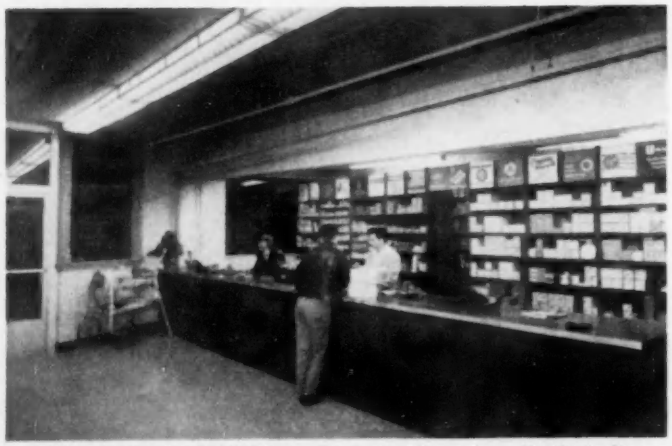
ENTRANCE FITTINGS • CONDUIT BODIES • FLUSH SWITCH FITTINGS • EXPLOSION PROOF FITTINGS • VAPOR TIGHT LIGHT FIXTURES • EXPLOSION PROOF LIGHT FIXTURES • SEALED BEAM FIXTURES

Vandeventer and Easton Aves. St. Louis 13, Missouri

SALES OFFICES and WAREHOUSE STOCKS	ATLANTA	69 Mills St., N. W.	DALLAS	1903 Griffin St.	PHILADELPHIA	2014 Chancellor St.
	BOSTON	49-51 D St.	DENVER	1073 Galapago	PITTSBURGH	50 26th St.
	BUFFALO	278 Johnson St.	DETROIT	8319 Mack Ave.	SAN FRANCISCO	714 Harrison St.
	CHICAGO	1528 West Adams St.	LOS ANGELES	412 Seaton St.	SEATTLE	4130 First Ave., S. W.
SALES OFFICES	BALTIMORE	11 W. 25th St.	COLUMBUS	2700 E. Main St.	MINNEAPOLIS	826 Andrus Bldg.
	CINCINNATI	[illegible]	KANSAS CITY, MO.	[illegible]	NEW YORK	[illegible]

CHUCKLE OF THE MONTH

Of course I'm *in* the electrical business. Now give me ten feet of three slant the letter "C" . . . . number one, two . . . the letter "B" . . the letter "X".



MANUFACTURERS STOCKED by Frank A. Blesso, Inc., Hartford, Conn., are readily identified by "car-card" display on top of the city counter's shelf area. The distributor recently moved into a modernized building which more than doubled its former area. Two trucks are used to deliver stock throughout most of Connecticut. The company exclusively services contractor and industrial customers. See page 112.

it's a "Snap"...

TO SELL the New BUCHANAN Snap-On SPLICE INSULATOR

SELLS ON SIGHT... the *perfect* answer for all circuit wire splicing.

NATIONALLY ADVERTISED... your customers are reading about it this month in:

CONTRACTORS ELECTRICAL EQUIPMENT; ELECTRICAL CONSTRUCTION AND MAINTENANCE; QUALIFIED CONTRACTOR.

ATTRACTIVELY PRICED... bound to ring up volume sales, with handsome profits for *you*.

CONVENIENTLY PACKAGED . . . in sturdy well-labeled Metal-Edge boxes.

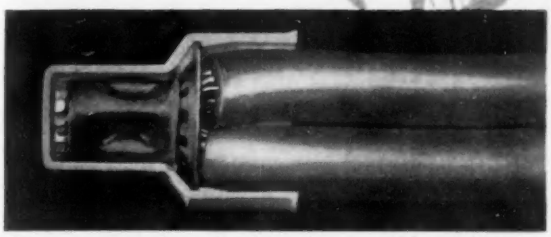
PRICED RIGHT!
PACKAGED RIGHT!
SELLS ON SIGHT!

You just can't miss . . . Be ready to meet the demand—Include Snap-On Insulators in your next stock order.

GET SPLICED TO GREATER PROFITS THROUGH "BUCHANAN" Now!

BUCHANAN
ELECTRICAL PRODUCTS CORPORATION
Hillside, N. J.

to make PERFECT insulated splices with the NEW BUCHANAN Snap-On Insulators



Cut-away view of new insulator shows metallic retainer ring which securely positions and holds insulator on installed Splice Caps . . . *No* wrapping. *No* threading. *No* vibration worries. *Just snap it on!*

Easily installed on both rigid and flexible wire splices. Snaps on with equal ease in any climate . . . *No* wasted time. *No* wasted labor. *Just snap it on!*

Approved for applications up to 105°C.

Now . . . your choice of splice insulators—familiar Vinyl Insulator with turn-up security ring or new snap-on Nylon Insulator—*both* available from Buchanan . . . *both* UL and CSA approved for use on Buchanan Splice Caps up to 600 volts on building wire and 1000 volts in fixtures.

Use new Nylon Insulator #2007 on Splice Caps #'s 2004, 2004S, 2006, 2006S; #2014 on #'s 2011, 2011S. New Splice Caps #'s 2006 and 2006S take from 2 #18's thru 4 #12's.

Now you can perfectly insulate a splice with greater ease, speed, and simplicity thanks to the brand new companion to the familiar Buchanan Vinyl Insulator . . . New one-piece snap-on-and-lock Nylon Insulator with internal metallic retainer ring assures fast factory-perfect splice insulation . . . even in extremely cold weather . . . even on flexible wire.

With Buchanan's C-24 pres-SURE-tool with exclusive 4-way crimp, you can splice from 2 #18's thru 2 #6's with only 2 sizes of Splice Caps . . . *now* with a choice of insulators.

Get the facts now—
write today for new Bulletin W4

BUCHANAN
ELECTRICAL PRODUCTS CORPORATION
HILLSIDE, NEW JERSEY

WHAT YOU SHOULD KNOW ABOUT *STEPDOWN TRANSFORMERS*

(YOU CAN SELL THEM)

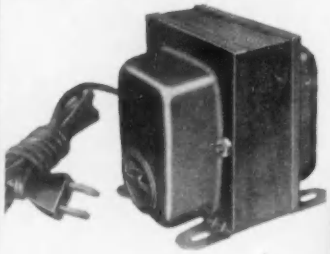
Stepdown Transformers are compact and economical units that can be plugged into a 200/240 volt power supply to provide 115 volt 60 cycle current.

The ever increasing trend toward distribution of power at higher voltage brings about conditions where old 110 volt lighting circuits are often changed to 240 volts. Under such circumstances electrically powered office equipment and small shop tools requiring 115 volts, can obtain their source of power by being connected to an Acme Electric stepdown transformer.

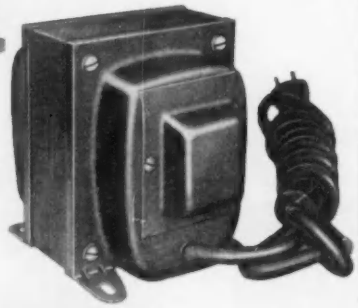
(EXAMPLE 1)
In a suite of doctors offices, window air conditioners, requiring 230 volts, necessitated changing the entire electrical system of the suite to 230 volts. Individual stepdown transformers ranging from 85 watt to 500 watts were then used to supply 115 volt current to the electric equipment in this suite.

(EXAMPLE 2)
A manufacturer of dresses, transformerized each sewing machine so that individual machines could be shifted in production from one style to another, simply by plugging into the 230 volt power circuit.

These are instances where Acme Electric stepdown transformers have economically solved a problem.



The 85 and 125 watt capacity units have 2 to 1 ratio windings for use on nominal input of 230 volts. These units are supplied with primary cord and plug and are designed with built-in female receptacle for secondary connection.



Units of 200, 300, 400, 500 and 1000 watt capacity have 200-220-240 volt primary taps. Connections may be made by removing cover plate on end bell. Heavy duty, primary cord and integral output plug furnished.

The 2000 watt capacity unit is designed with a large connection box with knock-out holes to permit conduit connection. Unit may be mounted in most practical and convenient position. Mounting base automatically provides for free air circulation.

Write for Stepdown Transformer Catalog and prices.

ACME ELECTRIC CORPORATION
674 WATER STREET CUBA, N. Y.
West Coast: 1375 W. Jefferson Blvd., Los Angeles, Calif.
In Canada: Acme Electric Corp. Ltd. • 50 Northline Rd., Toronto, Ont.

Acme ACME Electric
TRANSFORMERS

LETTERS

Continued from page 2

and we employ the same pricing setup there and it is also working satisfactorily.

The crux of the whole thing between your method of pricing and ours is that we are showing a list price to the ultimate consumer of 75¢ whereas you are showing a list or a retail price to the consumer of 72¢.

From this 72¢ to the consumer, you are passing a 33⅓ per cent credit from that 72¢ sale to the electrical contractor. We are passing a 20 per cent credit from our 75¢ sale to the electrical contractor.

The difference between our 20 percent to the electrical contractor and the 33⅓ per cent that you are passing on, is what we call a showroom expense item; and we are putting this into our pocket.

Both of us can see that the national lines of lighting fixtures are gradually reducing their list prices in order to accomplish just exactly what you were driving at and what you mentioned in your letter. Some manufacturers still retain that high list and so, when we work to a 40 per cent off to the electrical contractor-dealer out of the showroom, then we make a 16⅔ per cent showroom expense which we pocket. In the case of others, we retain a 10 per cent showroom expense margin. In other words, we give a 40 and 10 off to the electrical contractor when he orders by mail or when he comes in and does his own picking up and does his own fixturing of homes; whereas if we do the sale for his customer, we pass 25 per cent off the list to his customer, and then give him a 20 per cent credit from the net sale we make to that customer.

The time may come when we might be persuaded to shrink our resale from the 75¢ figure that we have now to the 65¢ figure which you intend to do with your 35 per cent off of the list, and then still giving the 20 per cent discount to the trade: but this I would not want to do.

IRVING P. BEAN
BEAN ELECTRIC COMPANY
SEATTLE, WASHINGTON

Copper Prices Rise

NEW YORK, N.Y.—Phelps Dodge Corp. and Anaconda Copper Mining Co. increased the price of refined copper to 36 cents a pound effective Mar. 29. Kennecott, the largest producer, matched the increase the next day.

When the going's roughest
specify the toughest*
A SUBSIDIARY OF
Penn-Texas
CORPORATION
NEMA
Carol®
CAROL CABLE COMPANY
Division of the Crescent Company, Inc., Pawtucket, Rhode Island
Serving Industry for more than 30 years
*FOR COMPLETE INFORMATION, WRITE DEPT. EW

NOW AVAILABLE

FROM NATION-WIDE WAREHOUSE STOCKS*

BIG CABLES

WITH THE SUPERB

TOUGHNESS

AND

FLEXIBILITY

FOUND ONLY IN

BRONCO

Certified **60**

Bronco 60 Certified Type W cables are made in all sizes from 8/2 to 1/4. They have a tough Neoprene jacket certified by a registered professional engineer to contain not less than 65.46% Neoprene. Made with coarse or fine stranding, Certified Type W possesses incomparable flexibility. The proof is in the product. Try Bronco 60 Certified Type W–you'll standardize with Certified.

Sold nationally only through Electrical Wholesale Distributors and manufactured by

WESTERN INSULATED WIRE CO.
Los Angeles 58, California

Warehouse Stocks Maintained in the Following Cities: ATLANTA, GEORGIA • BALTIMORE, MARYLAND • BOSTON, MASSACHUSETTS • BUFFALO, NEW YORK • CHICAGO, ILLINOIS • DETROIT, MICHIGAN • KANSAS CITY, MISSOURI • LOS ANGELES, CALIFORNIA • LOUISVILLE, KENTUCKY • MINNEAPOLIS, MINNESOTA • NEW YORK, N. Y. • PHILADELPHIA, PENN. • SAN FRANCISCO, CALIFORNIA • SEATTLE, WASHINGTON

Co-ops In High Cost Fuel Area Look To Atom

WASHINGTON, D. C.—Lewis L. Strauss, chairman of the Atomic Energy Commission, last month announced that the commission had approved a proposal by the Seminole Electric Cooperative, Inc., Madison, Fla., to study the feasibility of small central station nuclear power plants.

Seminole is a federation of five electric distribution cooperatives in north central Florida. The member cooperatives are financed by Rural Electrification Administration loans. The REA will observe and assist in the study and will report to the REA borrowers on developments affecting the REA program.

The object of the cooperative's study is to determine if a nuclear power plant can be developed to produce electricity at costs below those current in Florida and to determine the suitability of small plants with a 10,000 kilowatt capacity for use in the systems of member cooperatives. The study will run for one year.

Seminole's member cooperatives are said to serve one of the highest fuel-cost areas in the country. Its members are the Tri-County Electric Cooperative, Madison; Suwannee Valley Electric Cooperative, Live Oak; Central Florida Electric Cooperative, Chiefland; Sumter Electric Cooperative, Sumterville; and Withlacoochee River Electric Cooperative, Dade City.

Wiremold Elects J. D. Murphy President

HARTFORD, CONN.—John Davis Murphy has been elected president of The Wiremold Co. Robert Henry Murphy succeeds him as executive vice president. A recent meeting of the firm's board of directors also announced that D. Hayes Murphy will serve as chairman of the board of directors.

The new president has been with the company since 1934. He was elected vice president in 1941, a member of the board in 1947, and executive vice president in 1952. Robert H. Murphy, the new executive vice president, has been with the company since 1936, starting as a clerk in the factory office, then a machine operator, then a draftsman. He was elected assistant treasurer in 1941, and has served as factory manager since that time. He was elected to the board in 1947, and in 1952 was elected vice president.

PAUL L. OSTEEN, left, president of Interstate Electric Company of Shreveport, inspects new Prescolite catalog with John Hancock, president of John Hancock Co., Dallas. Prescolite recently held a regional sales meeting in the Louisiana city.

Graybar Names R. N. Ness

SAN ANTONIO, TEX.—R. N. Ness has been appointed manager at the local branch of the Graybar Electric Co., Inc., Dallas District Manager, V. M. Elmblad has announced. He succeeds J. E. House who retires July 1. Mr. Ness joined Graybar in 1940 was a warehouseman in Houston. After two years military service he returned to Graybar as a salesman at Fort Worth in 1946. He has been manager, district appliance sales, at Dallas until his new appointment.

Stanley Electric Moves To New Location

CAMDEN, N. J.—Stanley Electric Supply Co., is now in its new quarters located at 1671-77 Haddon Ave., this city. The newly acquired property is said to present many features the firm never had before.

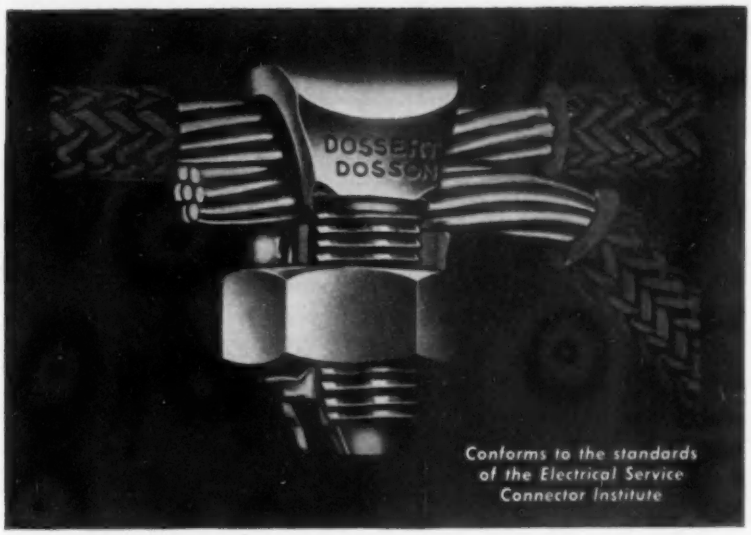
The distributor is celebrating its 25th anniversary this year. The company had been located at 35 E. Crescent Blvd., Collingswood, N. J.

Albert A. Bauer is president of the firm. Sales manager is Albert Rifkin. Martin K. Lubow is the buyer.

EEI Convention To Los Angeles

NEW YORK, N. Y.—The Twenty-third Edison Electric Institute Convention will be held in Los Angeles, from June 13 to 16, President Harold Quinton has announced.

The Convention Program Committee is under the chairmanship of Sherman Knapp, president of Connecticut Light and Power Co. Five general sessions will be held in the Philharmonic Auditorium.



Conforms to the standards of the Electrical Service Connector Institute

DOSSON "F" SPLIT BOLT CONNECTOR

Fabricated from high strength alloys (better than average steels), the Dosson "F" is cold-formed for uniform quality. Maximum contact pressure is assured by a high translation of tightening torque. Full length pressure bars with rounded edges prevent load concentration and crushing of conductor. Built to withstand high overload, vibration. Highly corrosion resistant.

Mail coupon for FREE Dosson "F" Connector

DOSSERT MFG. CORP.
249 Huron St., Brooklyn 22, N. Y.

Gentlemen:
Please rush free sample Dosson "F" Split Bolt Connector plus catalog sheet.

Name ..... Title .....
Company .....
Address ..... Zone ..... State .....
City .....

50 YEARS OF TECHNICAL KNOW-HOW

DOSSERT MFG. CORP.
249 Huron St., Brooklyn 22, N. Y.

A WORD TO THE WISE

Good news travels fast. Be ready to furnish complete information to lighting contractors who read this important announcement.

NEW!

Labor costs cut more than 50%

ON CONTINUOUS RUNS OF GARCY LIGHTING INSTALLED

with new *Speed-line*® system

PATENT PENDING

No extra mounting channels are used with Garcy *Speed-line* . . . saves cost and bulk. Garcy "joiners" connect super-reinforced Garcy Fixtures into rigid, easily-handled units . . . straight as a die.

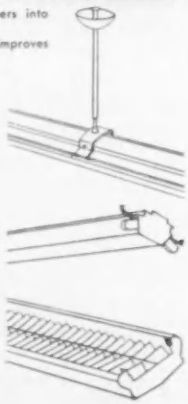
No straining at top of ladders. Simply hook Garcy Stem Hangers into hickeys and then connect house wiring.

Here's another great saving! Fewer hangers are needed . . . improves appearance, saves cost of hangers and installing extra hickeys.

WITH *Speed-line* YOU CAN DELIVER PREMIUM LIGHTING AT THE COST OF STANDARD FIXTURES

What a boon to contractors! The savings in labor cost enable you to quote a lower total price . . . and still furnish the highest quality commercial fixture made, the Garcy VISUALIER. *Speed-line* installation techniques were specially developed to take full advantage of the Garcy VISUALIER'S unique design features. Separate, lightweight wireways are easiest to handle. The separate, one-piece shielding bodies may be left in cartons, safe from dust and damage, until the job is ready to lamp and light.

Be the first in your area to offer this contract-winning advance. For budget jobs *Speed-line* is also available with Garcy's Gar-See-Lite fixtures.



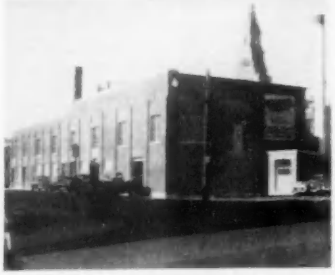
GARCY Quality *by Design*

GARDEN CITY PLATING & MFG. CO., 1740 N. Ashland Ave., Chicago 22, Ill.
In Canada: Garcy Co. of Canada, Ltd., 191 Niagara St., Toronto

Frank A. Blesso, Inc., Moves Operations

HARTFORD, CONN. — Frank A. Blesso, Inc., wholesale electrical distributors, recently moved their operations to a new location. The present quarters are located at 286 Sheldon St., Hartford.

The building was formerly occupied by a laundry, and has been completely modernized and revamped at a cost in excess of $50,000. It is of two-story brick construction with about



13,500 sq. ft. on each floor. Frontage measures 226 feet. The entire property has a frontage of 270 feet and includes a large parking area. The firm was formerly located at 31 Pope Park Highway in Hartford.

The company now has over twice the space it had previously. The exterior and interior have been completely remodeled for use and offices, counter sales area with rows of steel shelving, and a warehousing area with large heavy duty steel racks. The administrative area utilizes some 4,000 sq. ft. The remaining area is used for storage space.

The company employs 15 persons. Two trucks are used to deliver stocks throughout most of Connecticut.

Officers of the company are: Frank A. Blesso, President; his brother, John J. Blesso, treasurer; Michael L. Chester, vice president; Walter Tyburski, secretary; and Edward C. Churchill, assistant secretary. They associated themselves in the business shortly after the company was established in November 1945.

Boggis-Johnson Increases Space To 50,000 Sq. Ft.

MILWAUKEE, WIS.—The Boggis-Johnson Electric Company moved to larger quarters at 1401 W. Clybourn St. last month. The wholesale electrical apparatus and supply firm had been situated at 522 N. Water St., Milwaukee.

President Frederick S. Johnson, Jr., said, that with approximately 50,000

sq. ft. of space on three floors, the new building will provide nearly 150 per cent as much room as the former location. There is also more space for customer parking. The building has been leased from a realty company.

Boggis-Johnson, the city's oldest independent distributor, was founded in 1915. It includes the city of Milwaukee and 100 miles radius in its territory.

Westinghouse Lighting Promotes Huerkamp

CLEVELAND, OHIO—Edward C. Huerkamp is the new manager of the Westinghouse Electric Corporation's lighting division. He succeeds Burt S. Burke who has been named manager of the firm's north Texas district with headquarters in Dallas.

Mr. Huerkamp has been sales manager of the lighting division since 1937. He was a recipient of the James H. McGraw award to electrical manufacturers in 1946. Mr. Huerkamp served as chairman of both the first and second International Lighting Expositions, in 1946 and 1948, and on the executive committee for the third and fourth expositions.

IES 1955 Conference September in Cleveland

CLEVELAND, OHIO—The newest, most practical ideas and developments known in the field of lighting will be presented at the 1955 Illuminating Engineering Society National Technical Conference.

Convention dates are September 12 through 16. Many of the papers to be presented will deal with the practical application of light and lighting from both functional and esthetic standpoints. The affair will be held in the Statler Hotel.

Wehle Electric's New Quarters 30% Larger

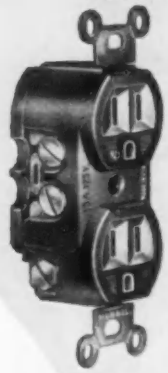
BINGHAMTON, N.Y. — Wehle Electric Company has moved into its new home at 25-27 Washington St. The location was acquired because of rapidly expanding business which demanded more room for warehousing, larger office quarters and more display room.

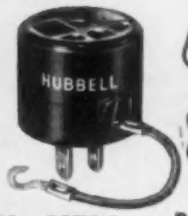
Richard J. Wehle, vice president and general manager, said the site provides 30 per cent more space than the former Water St. building. The company's main quarters are in Buffalo, with branches located in Elmira, Rochester and Binghamton. The company was started in 1923.

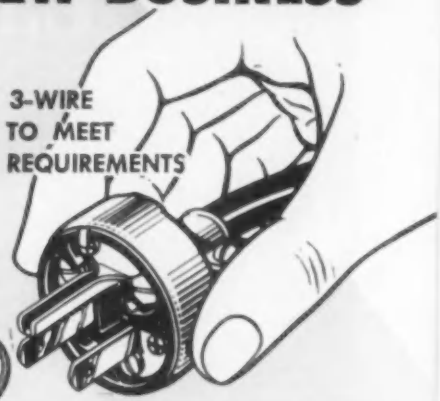
HUBBELL
REG. U.S. PAT. OFF.

INVITATION TO NEW BUSINESS

A COMPLETE LINE OF 3-WIRE GROUNDING DEVICES TO MEET CODE REQUIREMENTS



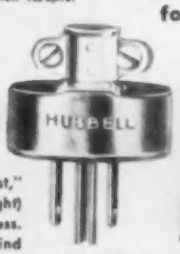




No. 5273-L
Heavy-duty Composition Adapter

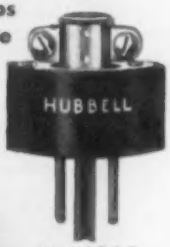
Rugged 3-Wire Caps with U-shaped Blade for Grounding

No. 5262
Specification Grade Convenience Outlet



No. 5264
Armored cap with cord grips.

No. 5274
Finger-grip type



No. 5266
Rubber cap with cord grips.

Whenever grounding is a "must," 3-wire grounding caps (see right) are your invitation to new business. As you know, caps of this kind with U-shaped grounding blade are required by N.E.C. and U.L. on many types of portable electrical equipment rated 125 volts or less.

Point is this: Some of your industrial customers are going to be surprised when they receive portable tools and machine tools equipped with this new 3-wire cap. It will present a plug-in problem . . . unless they have the receptacles, adapters, connectors, etc., to accept the new U-shaped grounding blade.

Don't miss this chance to sell them the devices they'll need. Hubbell's complete grounding line meets every requirement, satisfies the top industrial standard for rugged, dependable performance.

Also a complete line of 250-volt rated grounding devices. Literature on request.

No. 5278
Motor Plug Base (male)

No. 5279
Motor Plug Base (female)

No. 5252
Competitive grade convenience outlet for residential applications.

Highest Grade
HEAVY DUTY
WIRING HUBBELL DEVICES

E3HH55

FACTORY WAREHOUSE LOCATIONS ASSURE NATIONWIDE STOCK AVAILABILITY

37 South Sangamon Street, Chicago 7, Illinois
103 North Santa Fe Avenue, Los Angeles 13, California
11-15 Park Place, New York 7, New York
542 Natoma Street, San Francisco, California

HARVEY HUBBELL, INC.

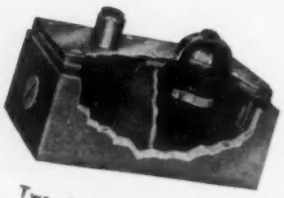
FULLMAN **Latrobe**
Electrical Products

Floor Boxes and Wiring Specialties

ADJUSTABLE WATERTIGHT FLOOR BOXES
•
NON-ADJUSTABLE WATERTIGHT FLOOR BOXES
•
ADJUSTABLE GANG FLOOR BOXES 1-2-3 AND 4
•
FLOOR JUNCTION BOXES

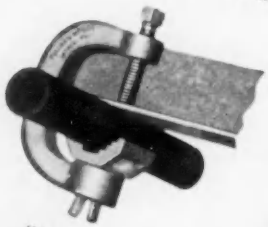
FULLMAN MANUFACTURING CO. QUALITY LATROBE SUPREMACY LATROBE, PA.

"Latrobe" Floor Boxes and Wiring Specialties are top performers because they are expertly designed of the finest materials.
"Latrobe" Products are proof that the shortest road to efficiency and economy lies through quality.



Two Gang Adjustable Floor Box

Adjustable Boxes come in single-round or square bodies. Also in square type Single Gang, Two Gang, Three Gang and Four Gang Boxes.



"BULL DOG" PIPE OR CONDUIT HANGER

Sturdy and dependable for hanging pipe to conduit ½", ¾" and 1" to steel beams up to 3/8" thick. Larger sizes for larger pipe.

Sold only thru Wholesalers

Write for illustrated Catalog

UTILITY OUTLETS
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NOZZLES AND FLOOR BOX ACCESSORIES
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INSULATOR SUPPORTS
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PIPE AND CONDUIT HANGERS
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ARMORED CABLE SUPPORTS
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CABLE CLIPS
•
STAPLES
•
FISH WIRE

Fullman Manufacturing Co.
1209-1215 JEFFERSON STREET
LATROBE, PA.

2 Alcoa Subsidiaries Get FPC License To Build

WASHINGTON, D. C.—Two Aluminum Co. of American subsidiaries have been granted a 50-year license by the Federal Power Commission to build a $10 million electric power project and to operate three existing dams in Tennessee and North Carolina.

The Alcoa subsidiaries are Tapoco, Inc., of Alcoa, Tenn., and Carolina Aluminum, of Badin, N. C. The proposed development and the three existing dams are known as the "Talahassee project" and are located on the Little Tennessee and Cheoh rivers.

The City of Memphis has let it be known it will build its own plant rather than buy power from the nearby proposed Dixon-Yates project. The project, scheduled to be constructed in West Memphis, Ark., was to supply power to Memphis and the surrounding area. Atomic energy plants are to use REA power and the Dixon-Yates plant is supposed to supply some of the power drawn off for the atomic energy plant use.

There are three privately owned utilities in Tennessee. One is the Alcoa subsidiary, Tapoco, Inc., (formerly Knoxville Power Co.). The other two utilities are the Franklin Power and Light Co., Franklin, Tenn., and Kingsport Utilities, a subsidiary of American Gas and Electric, in Kingsport, Tenn.

Trucks To Work Inside

NEW YORK, N. Y.—Facilities in a proposed warehouse will enable trucks to load and unload in the building itself. Morton Friedman, sales manager for Avon Electrical Supply, Inc., announces that a 25,000 sq. ft. warehouse will be completed by fall. The one-story building at 145 Jamaica Ave., Queens, is adjacent to the company's 25,000 sq. ft., three-story warehouse. With the present warehouse, which will continue to be used, trucks have to be worked outside.

Essex Buys J. M. White

FORT WAYNE, IND.—Essex Wire Corporation has announced the acquisition of all the physical assets of J. M. White, Inc., Philadelphia, Pa., one of the nation's pioneers in the manufacture of electrical wire assemblies. The firm will be operated as a division of Essex Wire Corp., and will continue to produce wire assemblies.

Chicago Wholesaler Changes Officers

CHICAGO, ILL. — Bernard H. Liberman, chairman of the board of directors, Illuminating Electric Co., wholesale distributors, has announced the following newly elected officers.

Marvin R. Liberman, president, succeeding Bernard H. Liberman. Harold N. Liberman, vice president and treasurer. Lester Berger, secretary.

The company is celebrating its 40th anniversary as a wholesale distributing concern. This is the first major change in officers in over 20 years. Illuminating Electric Co. is located at 5725 S. Halsted St., Chicago.

Michigan Wholesaler Starts Local AW Program

KALAMAZOO, MICH.—"The distributor and his salesman are in a key position to be a moving force in any electrical league or association Adequate Wiring Campaign," according to L. R. Klose II of the L. R. Klose Electric Company.

Speaking before the 11th Annual Adequate Wiring Conference at the LaSalle Hotel, Chicago, Mr. Klose said that the wholesale distributors' contacts make them logical initiators of action, and those who recognize their position in the adequate wiring picture will profit from helping to "make the market."

Mr. Klose, an NAED member, documented his remarks by outlining the

L. R. Klose II D. B. Clayton

experiences of his company as it led the way in the organization of the Kalamazoo Electric Club—the Club whose formation was spurred by the Klose Electric Company so that the local electrical industry would have a vehicle through which to operate an Adequate Wiring Bureau.

Throughout the organization and operation of the program, said Mr. Klose, every effort was made to keep it on a cooperative basis. Early organizational plans were formulated by

BEST BY TEST!

Every LEV-O-LOCK device is carefully checked and inspected before leaving the factory. Individual items are selected at random from the production line and submitted to exhaustive tests in the new Leviton Testing Laboratories. The "pull-out" test, illustrated, is just one of the many tests to which these devices are subjected.

LEV-O-LOCK, the modern design electrical connector that locks securely with a turn of the cap, to provide a secure connection that will not shake or pull loose . . . assures uninterrupted flow of power. LEV-O-LOCK devices are a must in factories for all electrical equipment; in offices for electric office machines; on farms for electric milking machines; in the operation of portable power tools and other electrical apparatus.

These new devices incorporate every up-to-the-minute advance in design and engineering. New features include heavy gauge phosphor bronze, double wiping contacts for all receptacles. Extra large terminal screws and ample room make wiring fast and easy. Rigid quality control from raw material to final inspection is your assurance of a superior product.

Try LEV-O-LOCK yourself and you'll agree that LEV-O-LOCK devices are tops for quality and performance at sensible prices. Why pay more when the best costs less!

LEV-O-LOCK devices available in 2, 3 and 4 wire caps, connectors and receptacles in 10 and 20 Amp. ratings. Also 3 and 4 wire rubber caps. Listed by Underwriters' Laboratories and C.S.A.

your best jobs are done with ... LEVITON

Send for literature: **LEVITON MANUFACTURING COMPANY • Brooklyn 22, N. Y.**

Chicago, Los Angeles. Leviton (Canada) Limited, Montreal

for your wire needs, contact our subsidiary AMERICAN INSULATED WIRE COMPANY

opens up even bigger sales opportunities for you on the famous Greenlee line

Here's the kind of real portability your customers are looking for in a hydraulic bender to form 1/2" to 2" pipe and conduit. One man can easily carry and operate the new advanced-type GREENLEE No. 880—and pipe supports are designed to serve also as rollers for easy moving of the unit. Light, but strong, aluminum alloy is used in many parts for big savings in weight with no sacrifice in strength. There's power to spare here and *a complete 90° bend can be made with one ram stroke!* With attachments this versatile bender can also be used to bend thin-wall conduit, tubing, bus-bars.

This new GREENLEE No. 880 Bender *with separate hydraulic pump and ram* is easily hand-operated or can be teamed with a GREENLEE Power Pump for fast production jobs. It's a widely needed new tool that you can do big business with . . . and it's being extensively advertised by GREENLEE right now. Tie-in your sales efforts for extra profit! Write today for Bulletin E-217 and prices.

TOOLS FOR CRAFTSMEN
GREENLEE

The fast-selling GREENLEE line includes Hydraulic Pipe and Conduit Benders • Tubing Benders Knockout Punches and Cutters • Hydraulic Knockout Punch Drivers • Cable Pullers Radio Chassis Punches • Boring Tools • Chisels • Gouges • and many others.

GREENLEE TOOL CO., 1844 COLUMBIA AVE., ROCKFORD, ILL., U.S.A.

Klose Electric and a local utility, Consumers Power Company. Then other distributors and utility companies of the area were asked to help, these organizations in turn invited contractors and manufacturer representatives, and as the members joined-up each was automatically named to the Adequate Wiring Committee.

Mr. Klose described how the Club is actively engaged today in the promotion of adequate wiring. Adequate Wiring Certification signs have been purchased by the Club from the National Adequate Wiring Bureau. These signs, whose distribution are controlled by the Club, are issued to a contractor upon approval of the wiring prints. They can be used by the contractor only at a given address.

The Club has the Adequate Wiring Emblem on file with the local paper for use by members in their newspaper advertisements. The Club has bought and distributed considerable Adequate Wiring promotional material. During National Home Week and Electrical Week, Club members ran advertisements stressing the need for Adequate Wiring. A speaker's bureau has been established so the Adequate Wiring Program can be carried verbally to all interested groups.

Plans for the future, according to Mr. Klose, include participation by the Club in the annual Kalamazoo Home Show; a public educational program using newspapers, direct mail and personal contacts, and expansion of the activities of the Commercial and Industrial Adequate Wiring Committees of the Club.

Big Price Cutting Over On Heavy Equipment

NEW YORK, N. Y.—Prices on key items of heavy electrical equipment are stabilizing following one of the biggest price breaks in the equipment market in decades.

Electric utilities report March equipment prices were pushing up near November, 1954, levels after competitive price cutting that had ranged up to 50 per cent on some heavy equipment lines. A heavy volume of orders was placed by utilities during the six-week price slashing spree which ended in mid-February.

Price cutting seemed to have centered on power transformers, although Electrical World, McGraw-Hill publication, notes that it may have started on capacitors. It spread quickly, though such items as distribution transformers and insulators

held fairly firm during that period.

Not all the utilities took advantage of the price drops and most buyers now are reported to feel that the period of deep cuts has passed.

Improved manufacturing efficiencies may have made some price trimming possible. Utility buyers believe the cuts were begun as an incentive to get further orders on the books. General view, however, is that manufacturers and suppliers were willing to spend some money in jockeying for position in the highly competitive market.

Most manufacturers affected by the drop were producing at high levels during most of last year and industry forecasts see no notable cutback in utility construction during 1955. Generation expansion may even have to be stepped up above the present plans. Prices are now supposed to be finding their levels very near those which existed before the six-week price break.

New York Wholesaler Drops Housewares Lines

NEW YORK, N.Y.—E. B. Latham & Co., 250 Fourth Ave., has made known that it has dropped its electric housewares business. The company in expressing its regrets, cited "existing conditions" as the reason for the action. The following letter was mailed to manufacturers of the lines involved early in March.

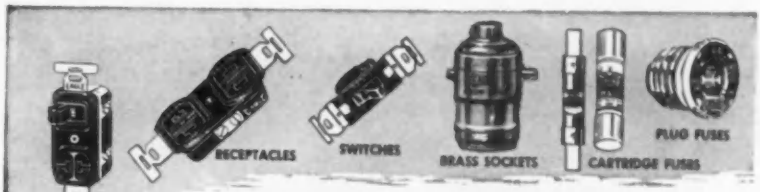
"Having completed a thorough and careful study of existing and forseeable conditions (at wholesale) of electrical household appliances in the New York market, our company has decided to discontinue all such lines.

"Accordingly, it is requested, you kindly arrange to review your records and cancel any unshipped orders you may have open on your books for our account.

"With reference to the matter of such existing inventory of your line as we may have on hand, we suggest you have your local representative contact us with a view to discussing the manner in which the same might be disposed of without disturbing the market.

"It has been a source of great pleasure and privilege indeed to have been associated as a distributor of your fine line of products over the years. We have thoroughly enjoyed the friendship and pleasant contacts we have had with your people.

"The decision arrived at has not



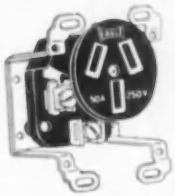
FOR QUICK, DEPENDABLE PROFITABLE CONNECTIONS

SPECIFY EAGLE RANGE and DRYER DEVICES

Now Eagle offers a COMPLETE LINE of quality, dependable, easy-to-wire devices—Flush and Surface Range and Dryer Receptacles; Range and Dryer Cord Sets; Flush Receptacle Plates. To be sure of the connection that looks best, performs best, and produces best profits—specify EAGLE.

NEW FLUSH RECEPTACLES

FLUSH RANGE RECEPTACLE



3 Wire Polarized
50 Amp—250 Volts
Cat. No. 122

For 4" and 4 11/16" boxes with ¾" plaster cover. No special attachments are required. Body and top of bakelite. Solidly constructed on welded steel cradle. Brown or ivory. Underwriters' Listed.

With NEW Easy-To-Wire "QUIK-LOK" Terminals

FLUSH DRYER RECEPTACLE

With "L" Shaped Grounding Slot
3 Wire
30 Amp—250 Volts
Cat. No. 168

For 4" and 4 11/16" boxes with ¾" plaster cover. No special attachments are required. Body and top of bakelite; solidly constructed on welded steel cradle. Brown or ivory. Underwriters' Listed.

With NEW Easy-To-Wire "QUIK-LOK" Terminals

FLASH! '55 BIGGEST DRYER YEAR

New U.L. code requires these 30 amp units on all home electric dryers. Dryer sales in '55 should hit the 1,000,000 mark. Don't overlook this tremendous dryer business. Stock up now and increase your profits.

EAGLE means an organization of trained engineers, production experts and experienced factory employees, *quality-conscious*. All EAGLE products are sturdily built—attractively boxed. Prices are kept low by 3 modern plants that basically produce all materials whether plastic, screw shells or screws.

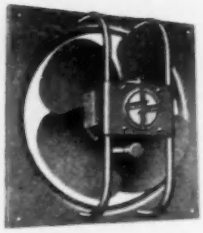
SOLD THROUGH WHOLESALERS ONLY

EAGLE

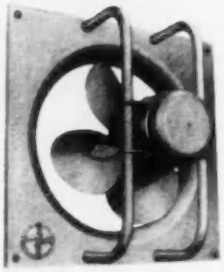
EAGLE ELECTRIC MANUFACTURING CO., INC.
LONG ISLAND CITY 1 • NEW YORK
"Perfection is not an Accident"

BIG STEP TO PROFITS

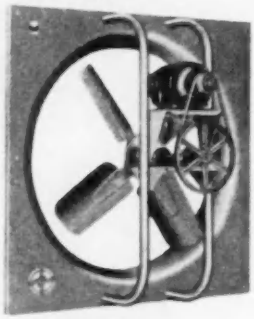
THE *Peerless* LINE



ECONOMY EXHAUST FAN



GENERAL EXHAUST FAN



INDUSTRIAL EXHAUST FAN

Sell the line that covers all applications from attic ventilating to big commercial and industrial jobs— PEERLESS. You sell more and earn more when you stock Peerless Electric fans. Peerless engineers work with you to iron out engineering problems. We solve them and help you make the best possible bid. You build profits faster because trouble-free Peerless products eliminate expensive call backs that eat into earnings. Finally, you get fans and blowers that are completely designed, built and guaranteed by one manufacturer—PEERLESS ELECTRIC—a famous name for more than 60 years. Check the Peerless profit line today. Write for Bulletin SDA-160. It gives you facts and "Guaranteed Ratings" on America's fastest growing line of fans and blowers.

Peerless Electric

FANS . BLOWERS . MOTORS
ELECTRONIC EQUIPMENT

PEERLESS ELECTRIC

THE PEERLESS ELECTRIC COMPANY • 1403 W. MARKET ST. • WARREN, OHIO

been an easy one or one which is without considerable regret. However, in the light of existing conditions, there appears no other sensible course to pursue."

President Leslie E. Latham, when reached for additional comment, declined, saying the company's official position was stated in its letter. E. B. Latham & Co., one of the metropolitan area's oldest distributors, serves New York City, including Staten Island, Long Island and Westchester county. It was founded in 1896.

Defective Installation Top Cause In Fires

NEW YORK, N.Y.—A recent study by the International Association of Electrical Inspectors showed that defective installation of electrical equipment is the leading cause of all electrical fires by nearly 15 per cent.

The National Board of Fire Underwriters says the study was based on reports of fires in 58 cities in the United States, Canada and Hawaii.

According to the study, fires from defective installations in 1953 increased 187 per cent over that for 1951. The survey pointed out that equipment which wore out in service was the second most frequent known cause. Such equipment included defective and worn out motors, those in home refrigerators, and cords, particularly those on circuit extensions.

TV sets, because of their greater number of heat producing components, also were cited as a cause of fire. Because of this, the underwriters urged that the manufacturer's provisions for ventilating the sets should be carefully observed. The study was published in the Quarterly of the National Fire Protection Assn.

Seven New Members Bring NEMA Total to 571

CHICAGO, ILL.—Seven manufacturers were admitted to membership in the National Electrical Manufacturers Association at its winter meeting held last month. President A. F. Metz announced that their election to membership increases the association's register to 571.

Five more firms have joined NEMA's wire and cable section. The new members are Kaiser Aluminum & Chemical Sales, Inc., Chicago, and Rea Magnet Wire Co., Inc., Fort Wayne, Ind. These firms joined the section at the convention.

In the past four months, three other

companies also joined the wire and cable section. These are: American Steel & Wire division of the U. S. Steel Corp., Cleveland, Ohio; Narragansett Wire Co., Pawtucket, R. I.; and Walker Brothers, Conshohocken, Pa.

The addition of these five companies increases the membership of this section to 39 members. These 39 companies are said to have sold, in the open market, more than $1 billion of insulated electric wire and cable products during 1954.

The seven new members admitted to NEMA membership are: Continental X-Ray Corp., Chicago; The Dobeckmum Co., Cleveland; Electrovector, Inc., Brooklyn, N. Y.; Globe American Corp., Kokomo, Ind.; Kaiser Aluminum & Chemical Sales, Inc., Chicago; The J. P. Lewis Co., Beaver Falls, N. Y.; and Rea Magnet Wire Co., Fort Wayne, Ind.

Electronics Industry Put At $9 Billion Yearly

PHILADELPHIA, PA.—The electronics industry currently is a $9 billion industry and within the next decade its sales and revenues will be approximately $20 billion annually.

Continuing to describe electronics as the world's fastest growing major industry, W. Benton Harrison, vice president, finance, Sylvania Electric Products, said his estimates concerning its great future were based on "realistic projects of sales trends that already have become well established."

Last year, when 7,300,000 TV sets were sold to the public, was television's biggest year to date. Mr. Harrison stated that it is likely that no more than 150,000 color TV sets will be produced this year, with only 100,000 of these being sold to the public. In the 1958-60 period, color will probably account for about 34 per cent of all sets produced.

• **Color On Way**—"As you can see," the Sylvania official said, "color is on the way, but it will be some time before color sets will be marketed in large quantities, and it will be at least six years before color set production catches up with black-and-white.

Presently there are 46,600,000 homes with radio sets and nearly 70 per cent of these same homes already have TV sets. This, Mr. Harrison explained, means that television is rapidly approaching the saturation point. Perhaps the future will bring the era of the house's second TV set, as in the

PORCELAIN PRODUCTS' Service Mast KIT

MAKES INSTALLATION FASTER...EASIER

STANDARD FOR 2" PIPE

Also available FOR 2½" PIPE

EVERYTHING FURNISHED

but the house and conduit

Here is the *only* Service Entrance Mast Kit complete in every detail—including roof flashing—even necessary bolts, nuts, lag screws and nails. Can be *installed* by an *electrician, with electricians tools.*

Cut down installation costs with these easier, quicker to install, service entrance mast kits.

Here is a complete list of the parts you'll find in this Porcelain Products' Service Mast Kit.

√UL approved Service Entrance Cap and Bell Reducer

√Galvanized Roof Flashing and Storm Collar

√Roof Mounting Plate of new and original design

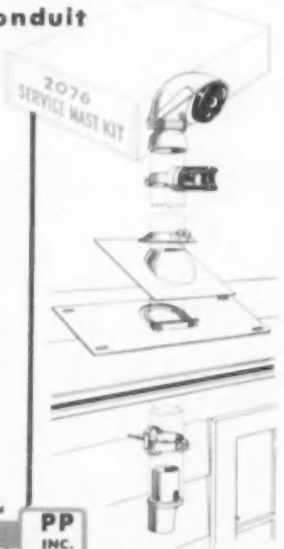
√Conduit hanger with 2¼" lag screw attached

√Slip-fitting offset reducer with interior grounding device

√All necessary bolts, nuts, lag screws and nails

√Plus—Porcelain Products' famous 2061-C Pipe Mounting house brackets as specified

WRITE FOR DETAILS TODAY!



ELECTRICAL PORCELAIN SINCE 1894

61 Years Porcelain Products, Inc. PP INC.

FINDLAY, OHIO

CATALOG NO.
2075 — NO WIREHOLDERS
2076 — 1 WIREHOLDER
2077 — 2 WIREHOLDERS
2078 — 3 WIREHOLDERS

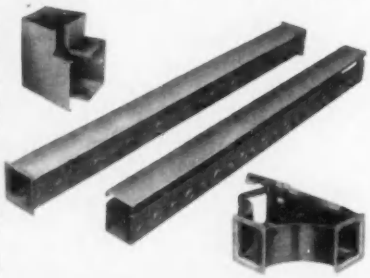
You can get WHAT you want WHEN you want it from the

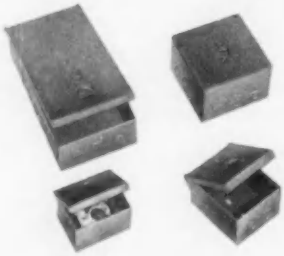
KEYSTONE QUALITY LINE

WIREWAYS AND FITTINGS · CUTOUT AND PULL BOXES
SWITCH BOXES · OUTLET BOXES · BAR HANGERS

SERVICE is the "keynote" at Keystone! And one good example is the fact that *every* item in the complete Keystone Line is stocked for *immediate shipment* direct from modern factory warehouses. No waiting for production, no delayed deliveries, no fooling around with partial shipments. And it all adds up to lower inventories, faster turnover, more satisfied customers for you!

KEYSTONE WIREWAYS and Auxiliary Fittings have all the time-saving, money-saving features your customers want. They're quickly, easily installed, readily adaptable to any power distribution system. Available, too, in both flanged and flangeless styles and a wide range of sizes and lengths . . . from 2½" x 2½" x 1 ft. through 8" x 8" x 5 feet long.





KEYSTONE CUTOUT BOXES and Pull Boxes are furnished in Type "A" with hinged cover, Type "SC" with screw cover. Both feature a formed construction strongly fabricated and securely welded . . . with adequate, easily removable knockouts. And both types are available in a complete range of sizes . . . stocked for prompt delivery to meet your needs.

KEYSTONE SWITCH BOXES and Outlet Boxes are loaded with extra quality features! BX or Romex clamps are already assembled with nested fit for easy pulling of wires. Knockouts and pri-outs come out double quick. And tapped holes are extruded to provide extra thickness, eliminate stripping of threads. Even mounting brackets make installation easier.

"See us at Booth No. 123 N.A.E.D. 47th Annual Convention Conrad Hilton Hotel—Chicago, May 22nd through 25th."

It pays to figure on Keystone

KEYSTONE MANUFACTURING COMPANY

23328 SHERWOOD AVENUE • CENTER LINE (Detroit) MICHIGAN

. . . the Complete Line of Wiring Installation Equipment
Sold Only through recognized Electrical Distributors

case today of many houses having from two to a half dozen radios.

• **Biggest Customer** — Describing the U. S. government as the biggest customer by far of the electronics industry, with a great percentage of purchases going to national defense, Mr. Harrison reported that government orders might well double over a decade, and that most of the development work for applications of electronic equipment to industry and commerce lies ahead.

Sales of radio receiving tubes, TV picture tubes, special electronic tubes, and other components for repair purposes amounted to $670,000,000 in 1954 and will be near $800,000,000 in 1955. The total is expected to reach $1,250,000,000 in 1958-1960.

Mr. Harrison emphasized that the dollar figures he had quoted referred to "factory door" prices. Another important category in the electronics industry is the revenue created by the sale of end-products and parts through distribution channels or the distributor's and dealer's "mark-up". These revenues exceeded $2 billion in 1954 and are expected to be the same again this year. The "mark-up" by 1958-1960 should pass the $2,800,000,000.

Say 80% Of Workers Under Security Umbrella

NEW YORK, N. Y.—Company paid sick leave and group insurance are providing compensation against wage losses due to sickness and disability for 80% of the workers in 963 companies participating in a study on company methods of providing employee security recently completed by the National Industrial Conference Board.

• **Both Hourly And Salaried**—In analyzing programs for salaried employees in 468 of these companies, the Board found that 49% have formal sick leave programs, 48% have group accident and sickness insurance plans, and 47% give direct cash payments to their employees to supplement workmen's compensation.

A study of hourly plans in 495 of the companies revealed that 84% provide group insurance, 14% give supplements to workmen's compensation, and 14% have formal sick leave provisions. Although formal paid sick leave plans for hourly employees never have been widespread, the Board notes that they are on the increase: only 6% of 455 firms surveyed in 1947 had formal sick leave provisions for

hourly employees compared with 14% in the present survey.

Some companies use a combination of methods to provide a continuous flow of income to sick or disabled personnel. One-fourth of the 468 firms reporting on salaried workers provide both formal sick leave and group insurance, while about 9% of the 495 firms reporting on hourly employees have these dual benefits.

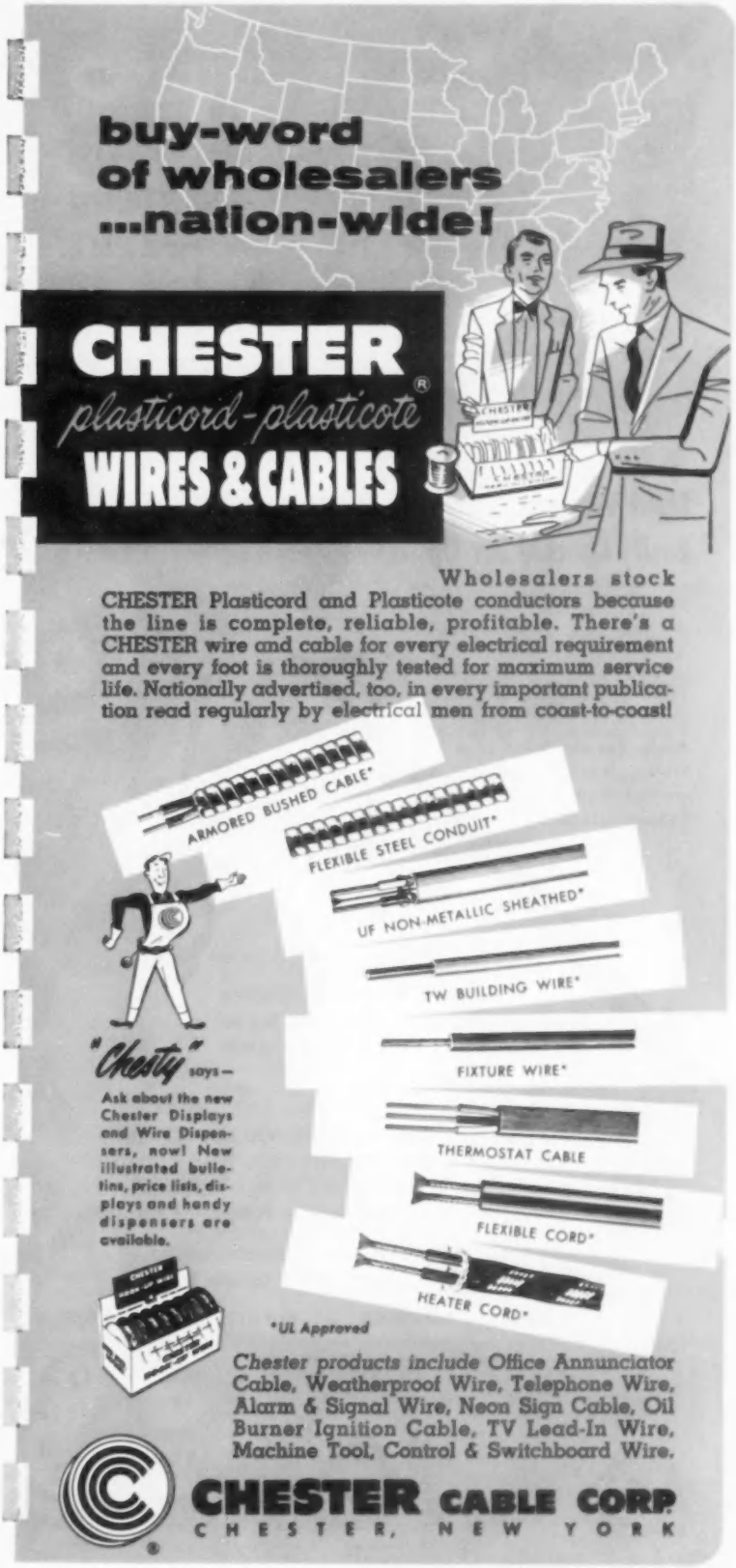
• **Workmen's Compensation**—The Board found that many companies give direct cash payments to employees in order to supplement workmen's compensation benefits. Most firms provide a cash payment, which, when added to compensation benefits, equals full pay for periods ranging from one week to the entire length of disability. Thirty per cent of the companies give full pay in addition to workmen's compensation to salaried employees, while 13% provide this same benefit for hourly employees.

• **Paid Sick Leave**—Almost half of the "uniform benefit" plans (plans which are not tied to length of service) giving sick leave for hourly employees provide full pay for three or five days; only 20% of uniform sick leave plans for salaried employees were found to be as limited. "Graduated" plans (in which benefits increase with length of service) are more generous than uniform benefit plans and are given more frequently to salaried than hourly employees.

• **Sick Leave Benefits Not Abused**—Abuse of sick leave benefits is not a serious problem, according to 90 industrial relations executives reporting on the effect of sick leave upon employee absenteeism. The vast majority say that abuses are held to a minimum by sensible administrative safeguards and by employee discretion. The most common protection against abuse is the doctor's certificate which an employee must submit when he returns to work. Also quite widespread are the continuous check of absentee records to spot employees who are abusing the plan and the home visits by nurses, supervisors or fellow employees when an employee reports sick.

Warehouse To Open

MASSENA, N. Y.—American Steel & Wire Division of U.S. Steel Corp. is opening a warehouse in this city to serve contractors and construction companies working on the St. Lawrence Seaway. The 4,800 sq. ft. structure will feature electrical wire and cable and wire rope products.



New Fast-Selling RIDGID 200 Tripod Power Drive

with SPEEDCHUCK

Light Weight...
Easily Quickly Set Up...
Built-In Folding Tool Tray and Folding Legs

Power for any hand pipe tools — ⅛" to 2" pipe or conduit, ¼" to 2" bolts; geared tools to 12".

Pats. Applied For

Leg Spacing and Tool Tray assure solid rigidity, greater strength . . . No front leg to obstruct swing of die stock handles.

Fast Easy Chucking, new principle—guaranteed to grip tight both forward and reverse, won't slip, even with geared tools . . . 3-jaw centering device turns with pipe, conduit or rod . . . Extra-powerful motor, larger brushes, longer commutator.

Order today—get ready to demonstrate and sell the new 200 . . . and make money fast!

THE RIDGE TOOL COMPANY • ELYRIA, OHIO, U. S. A.

RIDGID
Work-Saver Pipe Tools

Essex Exposition Sets New Attendance Record

NEWARK, N. J.—As was predicted, the 9th Industrial Electrical Exposition at Olympic Park, sponsored by the manufacturer's division of the Essex Electrical League, last month set a new attendance record. In fact, with the enlarged facilities of the park auditorium utilized for the first time, there was scarcely foot room in the aisles during the rush period.

There were 3,750 registration cards filled in during the three days when the exhibits were open from 4 until 10 p. m. The previous high mark was in 1953, when 2,434 were registered.

Many factors combined to make an increase of 25 per cent possible—abundant parking space on the premises, an even greater list of exhibitors, and a step-up in promotion to reach more and more by invitation.

From all walks of the industry they came to see the new time and money-saving products of the nationally known manufacturers, architects, contractors, engineers, maintenance men, wholesalers, plant and production managers and many others among important business executives. Comment by both guests and exhibitors indicated complete satisfaction—even enthusiasm—for the show.

Some random remarks from those at the exposition:

One exhibitor said: "I've never been so busy at an industry show—and I've never seen so many of the people I wanted to see. This show is the most productive of them all."

Another commented: "I'll be calling for a long time to see all the interested industrials who have invited me in for a talk about my product."

R. E. STOCKHAMMER, secretary-treasurer, left, Acme Electrical Supply Co., Somerville, N.J., discusses product with C. E. Mason, Novelty Electric Co., Philadelphia, as John E. Long, Acme, looks on. Acme brought along two busloads of contractors—some 63 men in all.

CALENDAR OF EVENTS

Eastern Electrical Wholesalers Assn., Inc.
25th Annual Dinner
Waldorf-Astoria Hotel
New York, N.Y.
April 30
Dinner, dance

Chicago Electrical Industry Show
Conrad Hilton Hotel
Chicago, Ill.
May 10-12
Exhibits limited to products in electrical construction, industrial, industrial lighting and industrial appliance fields

The 1955 Chattanooga Electric Show
Electric League, Electric Power Board of Chattanooga
Warner Park Field House
Chattanooga, Tenn.
May 10-14
Atomic Energy Exhibit is show feature.

Pacific Coast Electrical Assn.
Annual Convention
Palace Hotel
San Francisco, Calif.
May 11-13
Meetings

NATIONAL ASSOCIATION OF ELECTRICAL DISTRIBUTORS
47th Annual Convention
Conrad Hilton Hotel
Chicago, Ill.
May 22-25
Apparatus, supplies, electric housewares. No radios, TV, major appliances.

Edison Electric Institute
Annual Convention
Los Angeles, Calif.
June 13-16
Conference

National Housewares Mfrs. Assn.
Summer Housewares Show
Convention Hall
Atlantic City, N.J.
July 11-15
Exhibits, conferences

Illuminating Engineering Society
National Technical Conference
Statler Hotel,
Cleveland, Ohio
September 12-16
Meetings, social activities

NATIONAL ASSOCIATION OF ELECTRICAL DISTRIBUTORS
Pacific Zone
Empress Hotel
Victoria, B.C.
September 25-28
Meetings, panels

Eastern Electrical Wholesalers Assn., Inc.
Third Nat'l Electrical Industry Show
69th Regt. Armory
New York, N.Y.
October 11-14
Exposition

National Electrical Contractors Assn.
54th Anniversary Convention
Waldorf-Astoria Hotel
New York, N.Y.
October 31—November 3
Held in conjunction with the Electrical Industry Exposition

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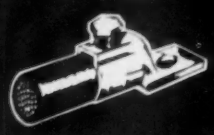

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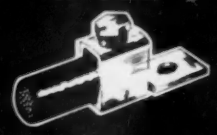

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PURE COPPER	RE-USABLE
100% CONDUCTIVITY	ALL WIRE SIZES
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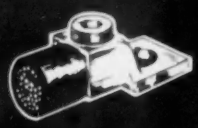

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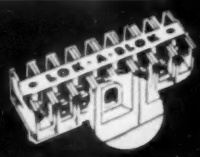
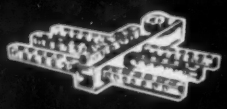


TERMINAL BLOCKS

CAN NEUTRAL



60, 100 & 200 AMPS.

FUSE CLIPS

MANY SIZES AND TYPES

SLU 11 SIZES

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MU 3 SIZES

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PEOPLE IN THE NEWS

Charles A. Schmidt is product sales manager for "AB" breakers for Federal Pacific Electric Co. He supervises the sales of all molded case breakers, except the "Stab-lok", including "AB" breakers in individual enclosures. His headquarters are in Newark, N. J.

Charles E. Meluney, Jr., is Houston district sales manager for the electrical wire and cable division of John A. Roeblings Sons Corp. His headquarters are in Houston. He is in charge of the division's sales activities covering most of Texas, as well as Oklahoma, Louisiana and Mississippi.

Jack Kirschbaum has been appointed distributor sales manager for the Alpha Wire Corp., New York City, by **Howard B. Saltzman,** general sales manager.

Albert E. Sharp is vice president in charge of manufacturing for The Edwards Co., Norwalk, Conn. He was general manager of the manufacturing division and has been with the company since 1946.

Billy Swisher, formerly lighting representative with the Iowa Gas & Electric Co., has taken over as head of the B & M Electrical Distributing Company's lighting department. B & M is located in Rock Island, Ill.

Arthur E. Mignot, vice president of The Wheeler Insulated Wire Co., Inc., a division of The Sperry Corp., retired on March 15th after 24 years with the company.

Sheppard Cohen, of Trumbull Co., has joined the engineering staff of Starring & Co., as a designer of fluorescent lamp ballasts. He had been with the G. E. ballast department.

Richard B. Taylor is northern sales manager of the Midland Wire Corp., Tiffin, Ohio, a subsidiary of the Essex Wire Corp., Fort Wayne, Ind.

H. J. Wilhelm is the new assistant sales manager of Star Expansion Bolt Co., Inc., and its affiliate, Rocket Devices Corp. Armand A. Assante succeeds him as advertising and sales promotion manager.

Don G. Mitchell, chairman of the board of Sylvania Electric Products Inc., has also been elected president

of the company to fill the vacancy caused by the recent death of H. Ward Zimmer. He will serve in the dual capacity for an indefinite period.

Frank J. Healy, a vice president of Sylvania Electric Products Inc., has been elected a director of the company.

Charles L. Allen has been appointed vice president and general manager of Slater Electric & Mfg. Co., Inc., Woodside, N. Y. Mr. Allen was formerly associated with the Sessions Clock Co., as general sales manager; with the General Electric Co. in several engineering and industrial sales capacities; and more recently, has been active as a management consultant.

OBITUARIES

W. I. Berniger

William I. Berniger, a partner in the Electrical Wholesale Distributing Co., New York City, and the Windsor Electrical Distributors Corp., White Plains, N. Y., died on March 17. His age was 49.

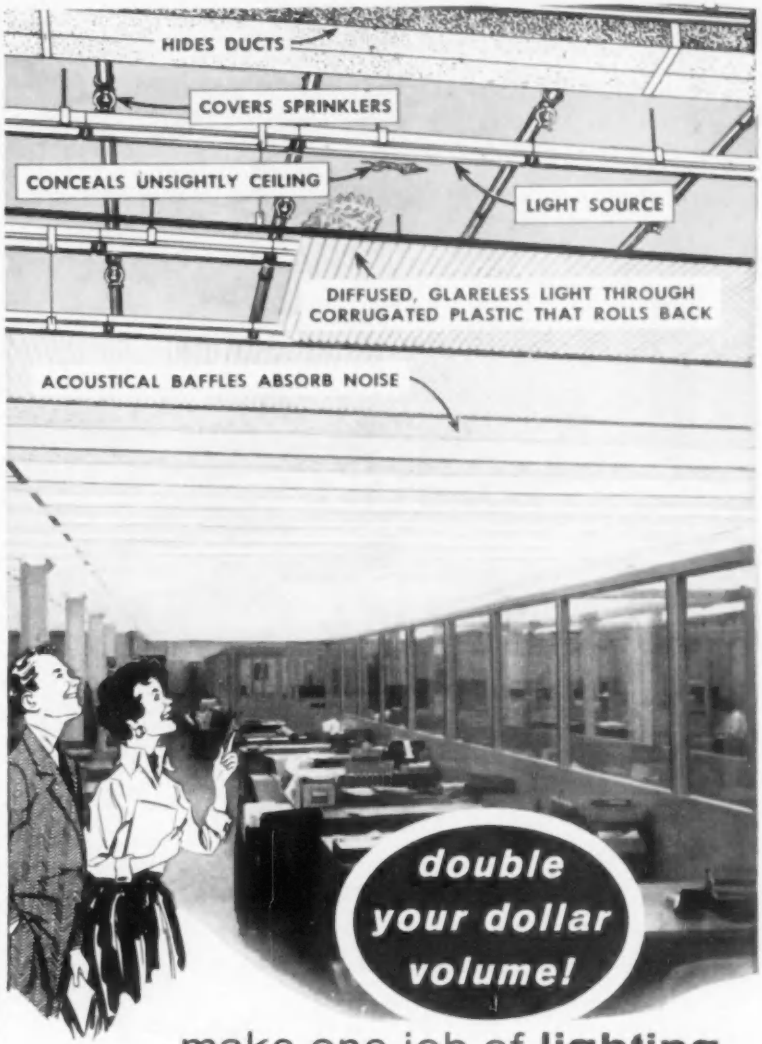
Mr. Berniger was born in London and came to this country in 1924. He was a member of the Eastern Electrical Wholesalers Assn.

ASSOCIATION NEWS

KANSAS CITY, MO.—Supply wholesalers have held a meeting going over this year's Industrial Trade show. The dates for the show are still unannounced. Fred Sholders, Graybar Electric Co., Inc., and Electric Association of Kansas City vice president, presided at the meeting.

The group decided the 1955 show be limited to association members. The need for a committee to be made up from supply wholesaler members, that would handle promotional literature and other matters, was discussed. The following are serving on the 1955 Supply Wholesalers committee: R. B. Brownlee, Missouri Valley Electric Co., chairman; John Dunn, Gesco; J. A. Ekstrom, Glasco Electric Co.; and Joe Gorman, Continental Electric Co. Other wholesalers attending the meeting were: Werner Hess, Tiemann-Hess Electric Supply Co.; J. L. Mullins, Jr., Kansas City Electric Supply Co.; P. D. Rensenhouse, Rossner Electric Co.; E. L. Shiffler, Gesco.

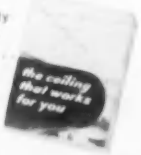
The 1955 Industrial Trade Show committee suggested, that, due to the publicity on adequate wiring, either an industrial or residential wiring booth would be desirable at the show.



make one job of **lighting,**
sound control and air conditioning with
Acusti-Luminus Ceilings!

Turn one job into a *three-way profit package* . . . increase volume with ACUSTI-LUMINUS CEILINGS! This allover ceiling of *glareless, shadowless light* also provides sound control and a ceiling-wide space for air conditioning and heating. These three essential elements for modern interiors are combined at a cost that's *lower* than conventional illumination and sound control alone. ACUSTI-LUMINUS CEILINGS are made from unbreakable, corrugated LUMI-PLASTIC and labeled by UL for installation under sprinkler systems. Simplified, profitable yearly maintenance . . . eliminates emergency calls.

Show the functional beauty of an ACUSTI-LUMINUS CEILING to your clients . . . send for FREE *illustrated booklet and location of an installation near you.*



over 4500 installations!

Luminous Ceilings, Inc.
Dept. F-2, 2500 W. North Ave.
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Please send me your free illustrated booklet and tell me where I can see an ACUSTI-LUMINUS CEILING installation!

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PHILLIPS AND SLOTTED WOOD SCREWS

WITH SERVICE BY U.S.A. STANDARDS

Southern Wood Screws, Phillips or Slotted, flat, round, oval, in steel, brass, silicon bronze, aluminum, stainless steel and all popular plated finishes.

Stove Bolts in slotted steel, round or flat.

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Write for free samples and stock list. Box 1360-Z

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Sold Through Leading Wholesale Distributors

SALES REPRESENTATIVES

The Pyle-National Co., Chicago, Ill., has appointed Walker & Rosche, Baltimore, Md., to handle the company's industrial line in that area.

Steel Electric Products Co., Brooklyn, N. Y., has appointed S. H. Stover, 5495 Penn Ave., Pittsburgh 6, Pa., as sales representative in West Virginia and part of Pennsylvania.

Carol Cable div., The Crescent Co., Inc., Pawtucket, R. I., has named the following: Marvin Weiss, 915 W. Randolph St., Chicago, to cover Illinois, southern Wisconsin and part of Indiana. Adams & Payne, 413 Colyton, Los Angeles 13, Calif., to cover greater Los Angeles and Arizona. John Paul Jones was appointed western zone manager for the Carol Cable division.

The Adalet Manufacturing Co., Cleveland, Ohio, has appointed Michael Curry, of The Curry Co., as their representative for northern California. The Curry Co. is located at 736 18th Ave., San Francisco.

Penn-Union Electric Corp., Erie, Pa., has named the John E. Elggren Co. to cover Utah, eastern Nevada, eastern Idaho and western Colorado.

Fasco Industries, consumer goods div., Rochester, N. Y., has appointed the W. J. Milner and Co., 148 Walker St., S. W., Atlanta, Ga., as sales representative for Alabama, Georgia and Tennessee.

Swivelier Co., Inc., Brooklyn, N. Y., has named Hugh L. Bargion, Honolulu, Hawaii, to cover the entire territory of Hawaii. Mr. Bargion's address is 3363 Paty Drive, Honolulu, 14.

The Rawlplug Co., Inc., New York, N. Y., has named J. P. Eichorn, of Eichorn & Melchior, San Francisco, as manufacturer's agent in northern California.

Roller-Smith Corp., Bethlehem, Pa., has appointed the J. G. Pettyjohn Co., 234 Daylight Bldg., Knoxville, Tenn., sales representative for the electrical switchgear division.

Starring & Co., Inc., Bridgeport, Conn., has appointed Murray Rosenblum & Co., 1818 West North Ave., Chicago 22, Ill., as mid-west sales representatives. Mr. Rosenblum will be assisted by William M. Brown, acting as general sales manager. Mr. Brown will join in the sales activities of John W. Johnson in southern Illinois and Indiana and of Robert Shaw in northern Illinois and Wisconsin.

Government — U. S. Government purchasing directory is a current and comprehensive guide to agencies which buy products or services. Addresses of the purchasing offices and the necessary procedures for selling to the government are explained. Directories are currently available at 50 cents each. Order from the Superintendent of Documents, Government Printing Office, Washington 25, D. C.

Metal Housings—Complete line of "Precision Built Metal Housings" is contained in a new 1955 catalog of the same title. Premier Metal Products Co., 3160 Webster Ave., New York 67, N. Y.

Fans—Home, office and industry fans are described in an 8-page fan brochure. Information includes a complete line of attic, window, exhaust and circulating fans, showing list prices and specifications. Copies may be obtained from the Dayton Electric Mfg. Co., 126 So. Oakley Blvd., Chicago 12, Ill.

Industrial Lighting — The new, higher RLM Standard Specifications

K&H
UNIVERSAL PRESSURE TYPE
ADJUSTABLE LUGS

One or two bolt holes

Wire sizes Nos. 14 to 1,000,000 CM. One-piece construction — easily installed. Body is well proportioned to withstand excessive use, with ample thread area. Makes tenacious grip on stranded conductors, forcing contact with each wire in strand, thereby insuring utmost in conductivity — bottom of tongue surface is ground. Not susceptible to release under vibration.

Write for dimensions and prices

KRUEGER & HUDEPOHL, INC.
THIRD & VINE STS. CINCINNATI 2, OHIO

WAGNER FITTINGS

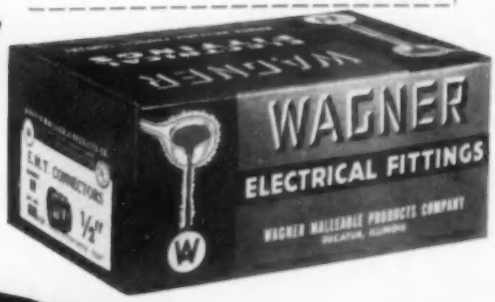
from molten metal to finished fittings to your customers'

Satisfaction

★ Wagner Malleable Fittings available in a wide variety of types and sizes, are purchased for service dependability. In every case, your customers will get the exact quality required for each application.

Exceptionally well packaged in attractive cartons, these fittings make ideal shelf stock. Each carton is plainly marked for quick identification. It pays well to stock this line.

LOOK FOR THIS MARK STAMPED ON ALL
WAGNER FITTINGS



WAGNER MALLEABLE PRODUCTS CO.
General Sales Office: 222 W. Adams St., Chicago 6, Ill.
Foundry and Plant: Decatur 60, Ill.

NEW MULTI CEILING FIXTURE

HERE IS A FIXTURE THAT SELLS ITSELF

DESIGNED TO GIVE UNIFORM DISTRIBUTION OF LIGHT WITHOUT GLARE. PAN IS SPUN ALUMINUM WITH ANODIZED ETCHED FINISH.

WITH THE MULTI LABEL YOU CAN BE SURE OF YOUR CUSTOMERS SATISFACTION.

AVAILABLE IN FIVE SIZES

INDIVIDUALLY PACKED

CAT. NO. 528 FOR ONE 60 W. LAMP
CAT. NO. 530 FOR TWO 60 W. LAMPS
CAT. NO. 532 FOR TWO 75 W. LAMPS
CAT. NO. 534 FOR TWO 100 W. LAMPS
CAT. NO. 536 FOR THREE 100 W. LAMPS

MULTI ELECTRIC MFG. INC.
4223 W. LAKE ST. CHICAGO 24

on both incandescent and fluorescent industrial lighting units (effective October 1, 1954) are contained in a new RLM Specifications book. It covers 46 different types and sizes of units now qualified to carry the RLM label. Advance reservations for copies of the new 1955 book are now being accepted by the RLM Standards Institute, suite 818, 326 W. Madison St., Chicago 6, Ill.

Light Controls—Information for the installation and operation of rapid start fluorescent lamps with light controls includes complete wiring diagrams and explains the type of ballasts, sockets and switches to be used. Other items discussed are grounding, starting, ambient temperature and noise. The device operates with rapid-start fluorescent lamps of any twelve standard colors. A descriptive leaflet is available from The Superior Electric Co., Bristol, Conn.

Tapes—Four-page brochure, "Permacel 2 in 1 Electrical Tapes," discusses the application of one tape doing the work of two. The illustrated brochure describes the method of tape application which required a heat curing tape for baking purposes, and a different self-sticking tape for holding

Sherman RIGID-TYPE Ground Fittings

are built to give extra long-life service

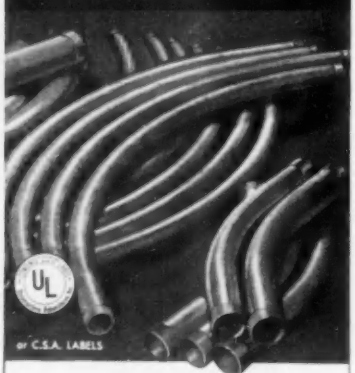
A special bronze alloy of the highest conductivity and strength is used in Sherman's extra heavy Rigid-Type Ground Fittings. Rugged bodies provide maximum strength and additional stock for extra threads. This extra thread length, plus long, heavy-duty bolts and lock washers provide more clamping pressure.

GF13B for ground wires up to No. 4 stranded AWG. Fits ¼" to 1" pipe and ½" to 1" ground rods.

GF23 for ½" conduit. Swivel conduit hub is adjustable to any position. Capacities same as GF13B.

H.B. Sherman Manufacturing Co.
BATTLE CREEK, MICHIGAN
Electrical Fittings for Wire and Cable

CONDUIT



• ELBOWS – *Large Radius, Standard Radius, E.M.T.*
PIPE NIPPLES
COUPLINGS
RUNNING THREAD PIPE
WALL PLATES • GOOSENECKS
Write for Catalog

CONDUIT NIPPLE MFG. CO.
1455 Spring Garden Ave. PITTSBURGH 12, PA.

and insulating purposes. It then compares the old method to the new, in which one tape can function in both applications. Copies may be obtained by writing to Permacel Tape Corp., advertising services dept., New Brunswick, N. J.

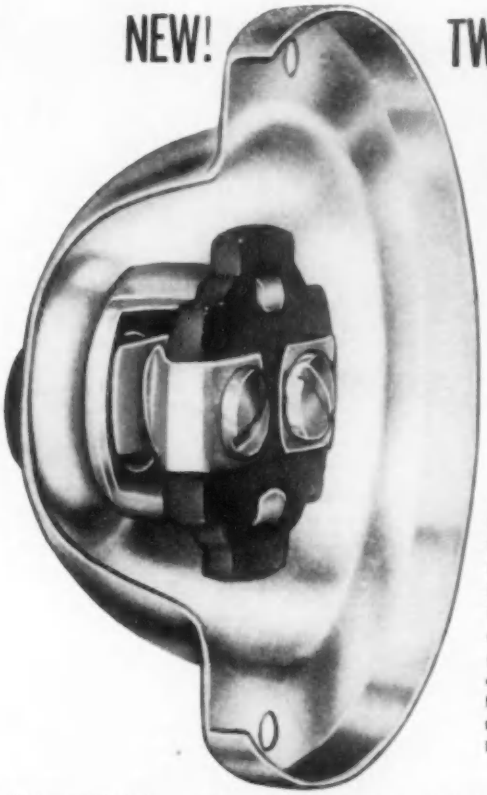
Panelboards—A 24-page bulletin describes a line of lighting and distribution panelboards for industrial and commercial use. Federal specifications are given as they relate to Continental circuit breaker and fusible type panelboards. All panelboards are illustrated and construction design and application features are given as well as ratings, weights, dimensions and knockout arrangements. Bulletin No. 501 is available on request to Continental Electric Equipment Co., Box 1055, Cincinnati 1, Ohio.

Farm Lighting—"Outdoor Lighting for Your Farm" covers a variety of farm lighting applications. Some of the subjects covered are circuits, power distribution centers, pointers on planning outdoor lighting, wiring systems, selecting outdoor fixtures, installating switches, and types of lamps for outdoor use. Booklet includes photographs and illustrations. For copies, write Sylvania Electric Products Inc., public relations dept., New York 19, N. Y.

Busways—Because business machines are often rearranged as the volume and type of work changes, a flexible system of supplying electric power is necessary. Bulletin No. 47 describes the manufacturer's 60-amp. overhead trolley busway electrification system. Explained is how the installation of the systems will eliminate costly rewiring when relocating machines, remove the floor cables and outlets, lower maintenance costs and reduce machine shut-down time. Copies of the bulletin are available from Feedrail Corp., 125 Barclay St., New York 7, N. Y.

Air Conditioning—Helpful tips on ways to apply economical and efficient air conditioning to more than a score of different types of buildings, ranging from homes to plants and retail establishments, are outlined in a new booklet entitled, "Guideposts to Better Air Conditioning Installations." The 36-page booklet is a compilation of semi-technical articles by engineering consultants. Sections are devoted to cooling of living quarters (including hotels and apartment houses), public and commercial buildings, hospitals, restaurants, manufactur-

NEW!



TWIN CONTACTS locked in by new retainers on Trine PUSH BUTTONS

New interior design of Trine Push Buttons features retainer that locks twin contact (self-cleaning) mechanism securely to button housing. Never loosens . . . always holds tight . . . completely trouble free . . . eliminates service call Backs. Favored by contractors for its permanent installation features.

THIS NEWEST DISPLAY FEATURES TRINE TWIN CONTACTS.

Trine's ELECTRIC Push Button "63" No. 63 DEAL

personalized for you and for your customers

on ebony plaque

Your name or your customer's name engraved—or shipped without engraving.

Trine's newest display . . . simulated wood grain background perfect for 24 proven best selling push buttons—all different—in assorted finishes on solid brass. Size 15¼" x 22½" x 3/16" thick. Easel for standing: eyelets for hanging. Packaged Deal includes sample display and introductory "back-up" stock of 39 assorted push buttons (packed in individual, colorful Trine boxes) for a total of 63 push buttons. You pay only for push buttons. Labeled shipping carton for mailing.

Attractive double price card for easy selling . . . price card with spaces for retail prices . . . detachable cost card with complete Distributor - Dealer price information.

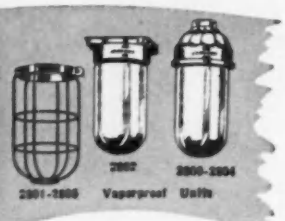
Write for catalog

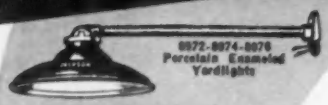
KEIL Trine MANUFACTURING CORP.
NEW YORK 61, N. Y.

JACKSON
INDUSTRIAL UNITS

Good Lighting for INDUSTRIAL PLANTS . . . FARMS . . . RURAL ELECTRIFICATION

Manufacturers of Reflectors — Yardlights Vaporproof Units — Weatherproof Sockets





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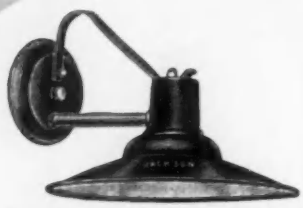

ORNAMENTAL LIGHTING BRACKET NO. 6957

Finish is black and brass. Height is 7½"—extends 14". Completely wired. Individually packed. Accommodates 100 watt bulb or PAR lamp and is for use in garages, motels, side entrances of public buildings, ranch type homes, and such places where ornamental brackets are needed.

5200 Weatherproof Sockets

5201

- *SEND FOR CATALOG*
- *SOLD ONLY THRU WHOLESALERS*

JACKSON ELECTRIC COMPANY
900-910 W. VAN BUREN STREET CHICAGO 7, ILLINOIS

ing and warehousing plants, and retail shopping centers, as well as individual stores. Another section contains suggestions on the most practical location of air conditioning equipment from a building design standpoint. Copies of this booklet are available on request from E. I. Du Pont de Nemours & Co., public relations dept., Wilmington, Del.

Electric Heating—Revised edition of the "Electric Heating for Homes Guide", is a comprehensive handbook on electric heating. The 32-page booklet contains the latest information on designing, cost estimating and installing electric heatings systems. Published by the Westinghouse Electric Corp., Pittsburgh 30, Pa.

Wiring Devices —Manufacturer of electrical wiring devices for home, industry and community has just issued its new 1955 48-page catalog which shows more than 600 products. Included are many items introduced for the first time. Catalog is printed in two colors and employs a 3-hole punch system of binding. Certain sections feature a thumbspot product finder. Illustrations of the various products are printed close to the margin, in a yellow column, for quick

There are
PLUS VALUES
for YOU
in
the PAINE line
of Hanging
and Fastening
Devices:

ONE SOURCE
Saves you time, inventory and freight costs.

TOP QUALITY
and job-right design make satisfied users.

GOOD PACKAGING
— Strong, colorful cartons, clearly labelled.

CUSTOMER DEMAND
stimulated with attention-getting ads like this →

ask for **PAINE** **"900" LEAD EXPANSION SCREW ANCHORS**

Standard machine screws start and turn easily in precision threads.

Special composition lead sleeve expands fast in masonry — cuts down "cold flowing".

Entirely rust-proof — won't deteriorate in damp locations.

Correct taper on threaded steel insert creates maximum expansion. Fast, sure action every time.

12 sizes — for holes 5/16" to 1¾" in diameter — hold from 50 up to 10,000 lbs.

Size and directional arrow on every anchor.

Setting tool, in every box of 50.

EASY TO USE
DO THE JOB RIGHT
SAVE TIME AND LABOR
when you anchor in masonry or concrete

Send for Catalog of Paine's Complete Line

THE BEST CRAFTSMEN ALWAYS TAKE PAINE'S

THE PAINE COMPANY, 3 Westgate Road, Addison, Illinois

POWERCRAFT
STOCKS FOR IMMEDIATE SHIPMENT
PRIMARY BUS SUPPORTS

● Contractors, Industrials, and Utilities rely on the accuracy of these Bus Supports to meet exacting service conditions. Available for Indoor and Outdoor Service—flat or pipe mounting. Conform to NEMA standards. POWERCRAFT invites your inquiries on any special Bus Support requirement. Other POWERCRAFT Products . . . Indoor and Outdoor Disconnecting Switches, Bus Clamps, Power Connectors, Pipe Frame Fittings for 1¼" I. P. S. Pipe, and Clamp Insulator Supports. Send for new catalog.

POWERCRAFT CORPORATION
2215 De Kalb St. Phone
St. Louis 4, Mo. Prospect 6-4532
Since 1932

identification by thumbing through the catalog. A copy may be had upon request by writing to the advertising department, Rodale Mfg. Co. Inc., Emmaus, Pa.

Air Conditioners—Room air conditioner line for 1955 is described and illustrated in recently issued folders. Sizes include ¾ ton and 1 ton units with cooling capacities of 8,000 and 11,500 BTU, per hour. Colorful folders may be had on request from The Emerson Electric Mfg. Co., St. Louis 21, Mo.

Street Lighting—Bulletin No. 551-5 on mercury lamp street lighting presents detailed information in connection with the manufacturer's transformers for use with the equipment. Copies of the 16-page bulletin may be had from the Jefferson Electric Co., Bellwood, Ill.

Motor Controls—Pocket catalog of motor controls contains 46 pages of photographs, specifications and prices. It is designed as a convenient ready reference for magnetic starters and contactors, push buttons, combination starters, drum controllers, master, foot, limit and pressure switches. Copies of booklet No. 5411 are available from the Furnas Electric Co., Batavia, Ill.

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WITH THE COLUMBIA TYPE AC-1 VOLT-AMMETER

Discover overloads and avoid trouble before it happens. Use the Columbia Type AC-1 for checking and testing electrical circuits. Simply snap the insulated jaws around the conductor for ampere reading, or plug in leads to read voltage.

This popularly priced, conveniently sized instrument has six ranges, up to 600 amperes and 600 volts, all with finger tip control. Convenient switch enables operator to select the following A. C. ranges: 0/12/60/120/600 amperes: 0/150/600 volts.

Measures current quickly and safely without breaking circuit or shutting down equipment. Accurate to within 2% of full scale deflection. Jaws accommodate bare conductor or insulated cable to 1½" diameter or bus bars to 2" x ½".

For use on all commercial frequencies — and 400 cycles too!

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$57.50 With Voltage Leads and Carrying Case

COLUMBIA ELECTRIC MFG. CO.
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Model 2ATW

It's the most COMPLETELY DEPENDABLE emergency light ever built! When regular lights fail . . . this new Big Beam turns on instantly —provides hours of illumination. The battery is charged to capacity *at all times* by an enclosed trickle charger. Your customers deserve Big Beam quality and dependability.

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This *sealed beam* model is one of many types of Big Beam portable electric hand lamps used in thousands of plants and warehouses throughout the country. Learn more about the complete Big Beam line.

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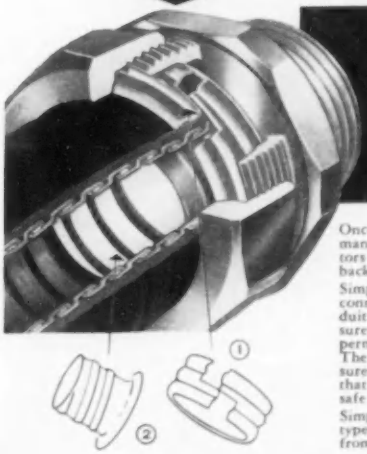
Every Sale a Salesman!

SIMPLET VAP-OIL-TITE CONNECTORS



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Once a contractor, maintenance electrician or manufacturer uses Simplet Vap-Oil-Tite Connectors he continues to ask for Simplet. He comes back for more, year after year.

Simplet is the original and dependable *split-ring* connector for liquid-tight flexible metallic conduit. Gripping the conduit with tremendous pressure, the split ring (1) provides a perfect seal, permanently safe against vapor, oil, water or dust. The threaded grounding bushing (2) not only assures a perfect ground, but also provides a collar that makes the fitting easier to install, completely safe and makes deburring unnecessary.

Simplet Vap-Oil-Tites are available in all wanted types — 45°, 90° and straight — all body sizes from ⅛" thru 2".

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Versatile Model "W"

Low Cost Model "400"

THEY ARE GUARANTEED

Every Reliance time switch you sell is guaranteed for 18 months. This complete warranty includes both materials and craftsmanship.

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Reliance time switches are built in capacities conforming with recommended NEMA ratings and are listed by Underwriters' Laboratories, Inc.

QUALITY CONSTRUCTION

- Minimum of working parts
- Heavy, brass cut gears and steel pinions
- Ground and polished steel shafts
- Non-arcing, pit-resistant contacts
- Expert workmanship

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RELIANCE TIME SWITCHES

A GOOD NAME TO REMEMBER . . .

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NEW PRODUCTS YOU CAN USE

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Bell Sound Systems, Inc., 555 Marion Rd., Columbus 7, Ohio

Three-speed tape recorder has a very fast forward speed for proper cueing as well as fast rewind. Another feature is the 1⅞ ips speed which permits six hours on a seven-inch diameter reel, when using the new extra play type of tape. Full push-button control with straight line slot threading. Positive action lever permits selection of the three tape speeds—7½, 3¾ and 1⅞ ips.

Vise Stand

Toledo Pipe Threading Machine Co., Toledo, Ohio.

Portable vise stand is said to set up and take down quickly, as it is all one unit with no loose parts. Built-in tray pushes up and folds for carrying. Features include: large size vise base for easy mounting of Toledo or other vises; three pipe benders; tool slots; pipe rest; and ceiling brace.

Card File

Remington Rand Inc., New York 10, N. Y.

Electrified rotary card index file contains movable shelves which travel in either direction. This feature is said to bring the required tray to the reference area from either above or

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FLUX

FOR SOLDERING BRAZING WELDING

•

L. B. ALLEN CO., INC.
6701 Bryn Mawr Ave.
Chicago 31, Ill.

below, stopping at posting level by automatic leveling. The operator doesn't have to leave her position at the unit because it is equipped with chair and posting board. It forms a complete work station. A foot switch can be installed so that the unit can be operated while the clerk has both hands free for work.

Roller Conveyor

The Rapids-Standard Co., Inc., Grand Rapids 2, Wis.

Light-duty 1¾ in. diameter roller gravity conveyor uses standard "Rapid-Wheel" and "Rapid-Roller" connectors thereby allowing sections to be used in conveyor lines with these models. Rated to carry loads of either mixed or uniform packaged goods and commodities, such as boxes, crates, drums, cans, kegs and irregular shaped objects having one firm, free-running surface.

Fork Lift

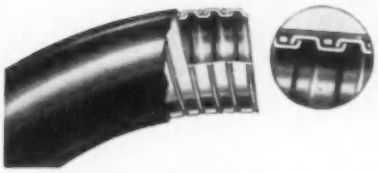
Allied Mfg. & Sales Co., 3113 W. Grand Ave., Chicago 22, Ill.

Hydraulic lift requires only one man to handle loads up to 3,000 lbs. The fork lift-truck can be powered by two standard six-volt batteries or an electric motor. Capable of lifting from floor level to heights up to 100 inches.

EXTRA *Flexible*

UNIVERSAL U-20SCB

Black Synthetic Cover*
Liquid-tight Flexible Conduit



Square *locked construction*, galvanized steel core, aluminum wire wound on sizes ⅜", ½" and ¾", full interlocked construction on larger sizes, both with overall synthetic cover to protect against liquid and moisture vapor conditions.

* Also, available with Gray Synthetic Cover, *Type U-20SCG*. Shipped in standard packages ⅜" through 2" conduit sizes. WRITE for ELECTRICAL DISTRIBUTOR Schedule U-20SC.

UNIVERSAL METAL HOSE CO.

2107 South Kedzie Avenue, Chicago 23, Illinois

A FOUR-IN-ONE TOOL FOR ELECTRICIANS

SLITTER
STRIPPER
CUTTER
SKINNER

B.E.P.

STRIPEX

The new STRIPEX is a wire skinner, cable slitter, cable-wire-and-waste cutter, all in one! Made of steel, nickel plated. Blade is replaceable. STRIPEX makes wiring easy and fast, trims and slits all the way into junction box.

Other B.E.P. Tools

BEP PULLER REEL . . . acts as a big handle . . . makes wire pulling easy!

N.E. BEND Snake LEADER . . . leads fishtape thru any number of bends . . . flips easily out of box to attach wires.

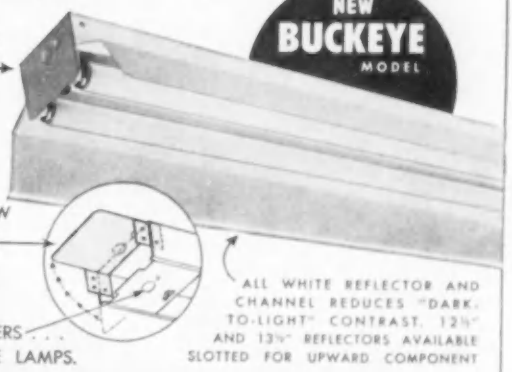
FAMOUS B.E.P. PRODUCTS: K.O. Box Hanger, BEP Fish TAPE, BEP PULLER.

DISTRIBUTED THRU ELECTRICAL WHOLESALERS ONLY.

Burbank Electrical Products
BURBANK, CALIFORNIA

NOW.... HOLDENline QUALITY in NEW... Competitive Priced Fixtures!

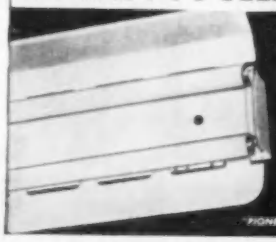
NEW BUCKEYE MODEL



THIS FULL METAL END CAP IS UNIVERSAL IT GIVES SOCKET PROTECTION . . . YET IT CAN BE TURNED AND USED AS A CONNECTOR STRAP FOR CONTINUOUS ROW LIGHTING . . . LIKE THIS ELIMINATING TIME AND COST OF CLOSE-NIPPLING IF DESIRED. "EASY ACCESS" STARTERS . . . NO NEED TO REMOVE LAMPS.

ALL WHITE REFLECTOR AND CHANNEL REDUCES "DARK-TO-LIGHT" CONTRAST. 12½" AND 13½" REFLECTORS AVAILABLE SLOTTED FOR UPWARD COMPONENT

SO EASY TO SELL..WITH THIS STORY TO TELL!



NEW CRUSADER model

← SLOTTED REFLECTORS HAVE 10% UPWARD COMPONENT.
← HEAVY-DUTY CONSTRUCTION AFFORDS COMPLETE SOCKET PROTECTION AND POSITIVE LAMP POSITIONING.
← LAMPS ON 5" CENTERS, STARTERS ON OUTSIDE.

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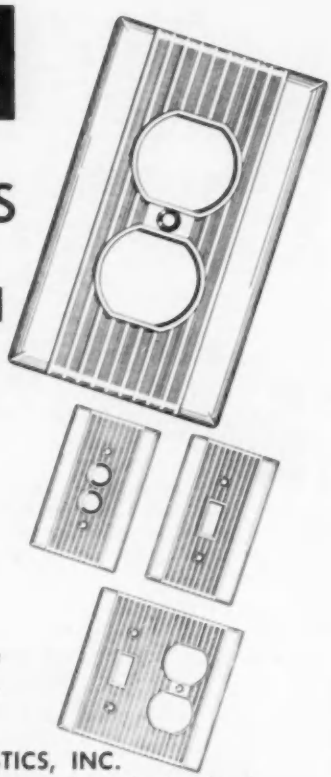

- All styles at one price per M gang
- Strength with *flexibility*
- Positive color uniformity — ivory and brown
- Complete line fits all standard wiring devices
- Immediate shipments

Write today for low prices, samples and catalog sheet showing all styles.

Reliance MOLDED PLASTICS, INC.
Mason Street, Woonsocket, Rhode Island

Principles of Management: An Analysis of Managerial Functions

Harold Koontz, Cyril O'Donnel
McGraw-Hill Book Co.,
New York, N.Y.

Presents, within a logical framework, the principles of management which have been drawn from the contributions of many managers and scholars, as well as from the authors' personal managerial experiences and observations of other managers. Arranged according to the following classifications of managerial functions: organization, staffing, directing, planning and controlling. Although the principles set forth are applicable to any kind of enterprise, they are related primarily to the field of business. Selected references.

664 pages

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R. K. Mautz
Wiley Publications
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Concentrates on the very fundamentals of auditing: the need for verification; the nature of audit evidence; the basic techniques for obtaining it and the

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30 to 600 AMP.

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COVER CONTROL
ARC SNUFFERS
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CAST HANDLES
INCREASED HORSE POWER

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Covington Kentucky
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SEE YOUR ELECTRICAL WHOLESALER FOR:
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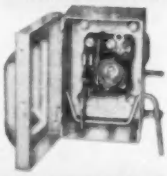

CATALOG No. 530
KNIFE BLADE
SIDE OPERATED
SINGLE THROW
FUSED — 30 AMP.
Size
D. 2¾" W. 3½" L. 5½"
NO — FUSED
OUTDOOR
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CATALOG No. 0275
NO HUB OR
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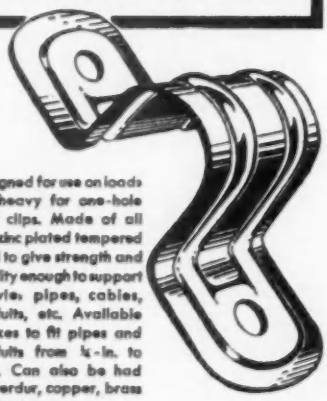
PIPE STRAPS

For Heavier Loads!



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MINERALLAC ELECTRIC COMPANY
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BETTER
WITH
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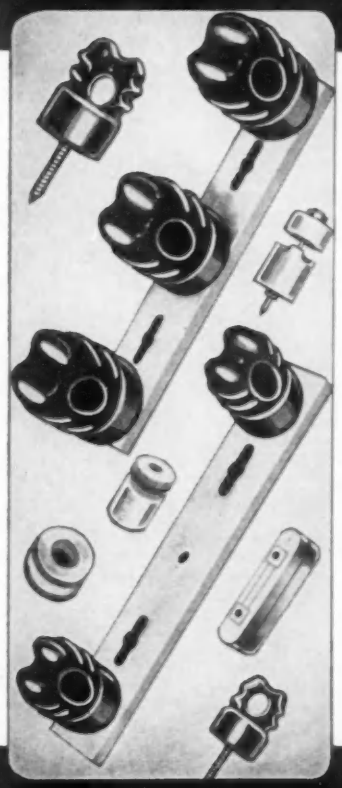

Your wiring installations will be *right* from start to finish when you use UNIVERSAL porcelain insulators! They have uniform body density, high dielectric and physical strength, resistance to temperature extremes, moisture, fumes, smoke and most acids... your positive assurance of long, trouble-free service.

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Provides an introduction to personnel relations in business. Part 1, Working with people; Part 2, Matching men and jobs; Part 3, The work environment; Part 4, Dealing with unions; Part 5, Looking ahead.

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Only Y-ER EAS has all these features

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- Does not run back on cables.
- Never harmful to hands or clothing.
- Permanently non-harmful to cables or conduit.

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Lead, Rubber, Braid or Synthetic Covered Cables

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Packaged in 10-roll dispensers or individual tins, Chase .007 Plastic Electrical Tape is the ideal, all-purpose tape for you.

Resistant to weather, abrasion, oils, acids, alkalies and corrosive chemicals, Chase Plastic Tape carries the Underwriters' Laboratories, Inc., seal of approval. Chase & Sons, Inc., Randolph, Mass.

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Tapes and Insulating Materials for the Electrical Industry.

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UNITED STATES	$166,207	$149,388	$123,526	$109,368	$116,445
Alabama	7,017	3,273	2,501	3,877	3,657
Arizona	2,355	1,261	1,618	1,618	1,658
Arkansas	5,740	6,323	4,890	4,151	4,217
California	210	115	110	105	105
Colorado	5,530	7,395	3,895	3,100	2,992
Connecticut	-	-	-	-	-
Delaware	307	307	142	218	218
Florida	4,408	3,263	3,216	2,702	3,537
Georgia	6,974	6,156	5,362	4,755	5,032
Idaho	974	349	326	259	1,033
Illinois	3,821	3,006	2,564	3,898	2,808
Indiana	3,484	3,334	2,779	2,469	2,455
Iowa	2,885	2,061	2,173	1,794	1,653
Kansas	3,310	2,375	2,385	1,756	1,813
Kentucky	6,586	5,253	5,531	4,880	5,237
Louisiana	2,880	2,252	2,176	2,473	2,256
Maine	116	368	75	182	46
Maryland	967	1,089	994	924	954
Massachusetts	-	-	-	-	-
Michigan	2,887	1,647	2,049	2,660	2,334
Minnesota	8,769	5,349	5,214	4,697	4,754
Mississippi	5,216	4,547	4,156	4,123	4,350
Missouri	5,151	5,083	4,755	4,422	4,601
Montana	2,373	1,846	1,369	1,573	1,580
Nebraska	4,864	3,828	2,339	2,056	2,057
Nevada	-	-	-	-	-
New Hampshire	553	507	434	415	469
New Jersey	207	78	176	94	140
New Mexico	6,081	8,023	7,041	2,716	7,274
New York	145	129	94	184	169
North Carolina	7,145	5,398	5,252	5,066	5,863
North Dakota	2,388	2,505	2,907	2,541	2,983
Ohio	4,154	2,862	4,405	2,552	3,732
Oklahoma	5,305	4,332	4,324	3,498	3,407
Oregon	900	540	881	544	589
Pennsylvania	2,677	2,359	2,263	2,315	2,193
Rhode Island	-	-	-	-	-
South Carolina	3,418	3,026	2,352	2,298	2,370
South Dakota	2,215	2,335	2,071	1,894	1,914
Tennessee	9,526	7,878	7,767	7,579	7,675
Texas	21,860	23,399	9,859	9,487	8,356
Utah	-	-	-	-	-
Vermont	139	3,434	111	111	172
Virginia	2,834	3,174	3,192	3,153	2,999
Washington	2,682	2,482	2,564	1,703	1,809
West Virginia	69	24	24	38	24
Wisconsin	2,300	1,864	1,486	1,629	1,606
Wyoming	2,517	2,061	3,068	1,564	1,860
Alaska	2,268	2,498	2,636	1,295	1,494

Note that these data indicate a decline in construction from 1956 to 1959. The decline may reflect inability of the borrowers to forecast accurately all of their requirements for future years rather than an actual decrease in requirements.

REA Electric Borrowers:

Here's How Much They Plan To Spend

REA's electric borrowers intend to construct new facilities at a cost of about $202 million during the 1956 fiscal year.

The Rural Electrification Administration estimates that they will submit about $156 million in loan applications to REA in 1956 to finance construction during that and subsequent years.

This information is based on a survey which REA made for the first time during the past year. The electric borrowers were ask to indicate their construction plans and financial requirements by years for the 1956-1960 period and more than 85 per cent responded. These reports have been adjusted to provide estimated data for all 991 active distribution and power-type borrowers. Present plans are to repeat the survey about July 1, 1955, to obtain the benefit of the borrowers' latest planning and get revised data for 1957-1961.

Other findings of the present survey include the following:

(1) Estimates for years after 1956, although less definite, indicate

that borrower construction and loan demand will continue at relatively high levels through fiscal 1960.

(2) Borrowers at this time have approximately $122 million of their own general funds invested in electric facilities.

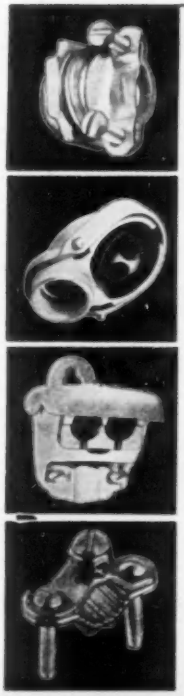
(3) Borrowers estimate that they will connect new consumers at the rate of about 125,000 a year through 1960. This includes both farm and non-farm rural consumers.

(4) Borrowers expect to invest about one-fourth of their future loans in improving and heavying-up their distribution systems to meet increased power needs of consumers.

(5) Applications for loans for generation and transmission facilities account for almost one-third of anticipated loan needs—well in excess of the long-term trend in such loans.

(6) The systems expect to increase their borrowings to finance consumer appliances and equipment under section 5 of the Rural Electrification Act.

(See EW—Mar. '55, p. 54, for what it takes to sell the REA Co-op market.)



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Manufacturers Representative

INVITES additional Apparatus and Supplies lines. Territory Served—Delaware, Maryland, District of Columbia and Virginia—electric utilities, electrical wholesale distributors and U. S. Government. Over 35 years sales experience. Address—

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CHICAGO: 520 N. Michigan Ave. (11)
SAN FRANCISCO: 68 Post St. (4)

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LIGHTING SALESMAN: With following among jobbers and architects. New 68 page catalog will soon be completed—descriptive in detail. If qualified, we have a most liberal proposition. We are pioneers in long lighting manufacturing—since 1937. Feld Corporation, 1948 to 2002 Papin St., St. Louis, Missouri.

WANTED REPRESENTATIVE for Philadelphia territory by a manufacturer with a quality line of rigid conduit and electrical metallic tubing. Give full information. RW-6104, Electrical Wholesaling.

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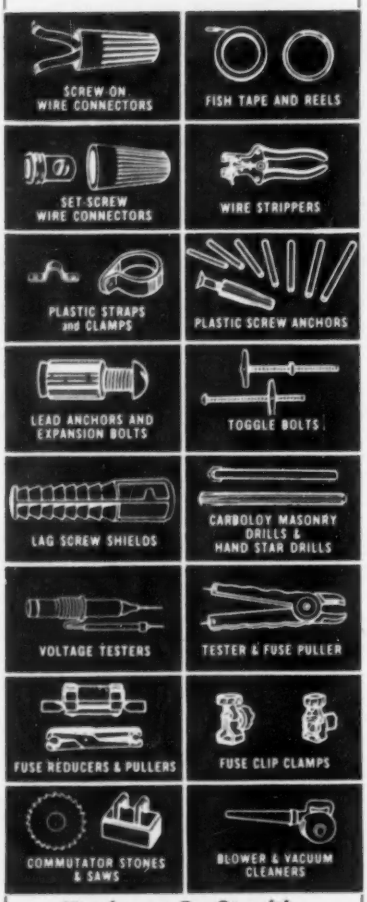

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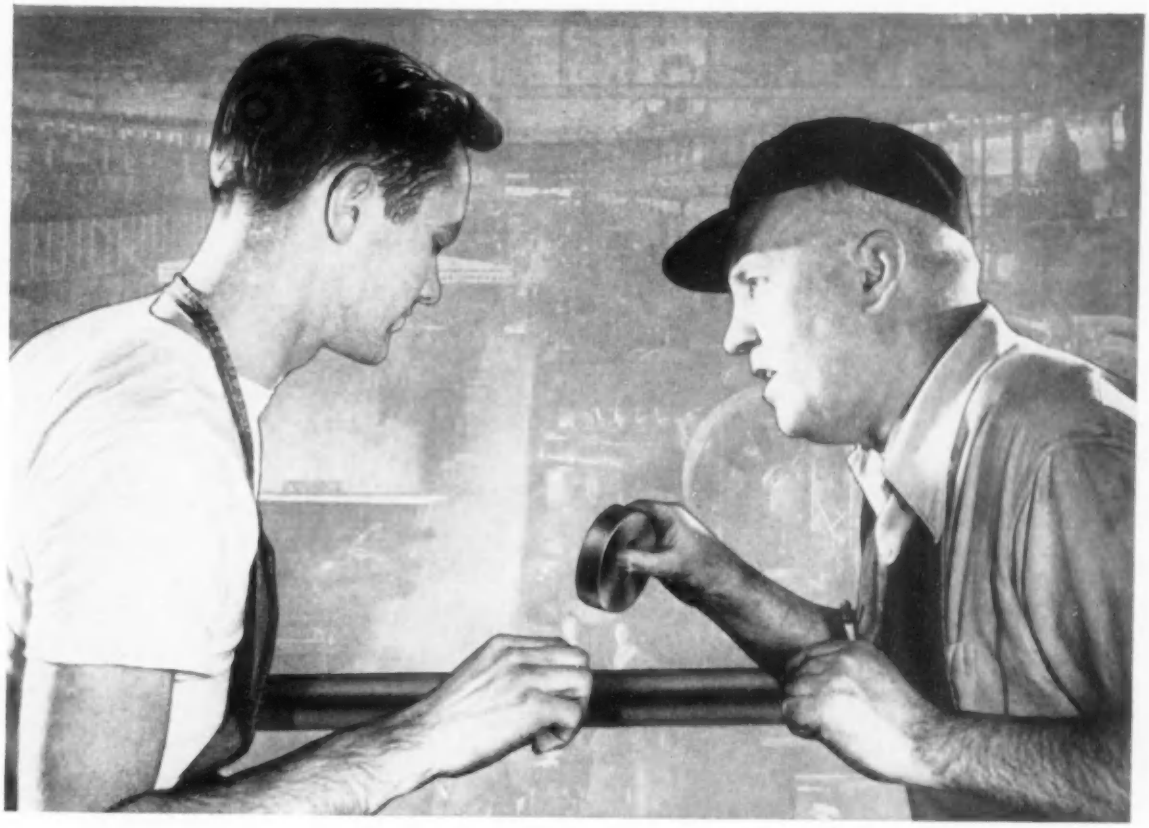

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